BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

ORIGINAL

In the Matter of the Application of)
HAWAIIAN ELECTRIC COMPANY, INC.) DOCKET NO. 2008-0083
For Approval of Rate Increases and)
Revised Rate Schedules and Rules.)

TRANSCRIPT OF PROCEEDINGS

VOLUME VI

Public Utilities Commission hearing held on Monday, November 2, 2009, commencing at 9:03 a.m., at 465 South King Street, Honolulu, Hawaii, pursuant to Notice.

REPORTED BY: TRISTAN-JOSEPH, CSR NO. 469
Certified Shorthand Reporter

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I N D E X

E X H I B I T S

P R O C E E D I N G S

CHAIRMAN CALIBOSO: Good morning.

I'd like to reconvene this proceeding in Document No. 2008-0083.

My name is Carlito Caliboso, Chairman of the Public Utilities Commission. I'm joined by Commissioner John Cole and Commissioner Les Kondo.

May I have the parties' appearances for the record, please?

MR. WILLIAMS: Good morning, Mr. Chairman, Commissioner Cole, Commissioner Kondo, and Commission staff and parties.

This is Thomas Williams appearing on behalf of Hawaiian Electric Company.

MR. ITOMURA: Good morning, Chair Caliboso, Commissioner Cole and Commissioner Kondo.

Jon Itomura on behalf of the Consumer Advocate.

Also with me is Executive Director Cat Awakuni, Dean Nishina from the division, and witness David Parcell.

MR. MCCORMICK: Chairman Caliboso, Commissioner Cole and Commissioner Kondo, my name is James McCormick, attorney representing the Department of Defense, along with Dr. Kay Davoodi.

CHAIRMAN CALIBOSO: Thank you and good morning to everyone.

Before we start our witnesses for this disputed issue on Cost of Capital and Return of Common Equity, we may have some procedural matters to take care of and hearing exhibits.

Mr. Williams?

MR. WILLIAMS: Yes, Mr. Chairman, thank you.

We circulated on Friday, when the Commission wasn't officially opened, what's been marked as Hearing Exhibit 7, which is an update for Dr. Morin's Rate of Return on Common Equity testimony, and we submitted a hearing Exhibit 8, which incorporates the updated Rate of Return on Common Equity at 10.75 percent if we have decoupling into the cost of capital.

COMMISSIONER COLE: Thank you.

Any objections from the other parties of these hearing exhibits?

MR. ITOMURA: No objections from the Consumer Advocate.

MR. MCCORMICK: No objection from the Department of Defense.

CHAIRMAN CALIBOSO: Thank you. We'll take them into evidence.

(HECO Hearing Exhibit Nos. 7 and 8 were marked for identification and received into evidence.)

CHAIRMAN CALIBOSO: Mr. Itomura?

MR. ITOMURA: For the Consumer Advocate, we had an issue of Exhibit 3 last week and, I think, it was conditioned upon HECO filing their exhibits or supplemental exhibits; so, at this time, if he could enter Exhibit 3 into the record.

MR. WILLIAMS: No objection, Mr. Chairman.

CHAIRMAN CALIBOSO: Thank you.

MR. MCCORMICK: The Department of Defense has two documents which --

CHAIRMAN CALIBOSO: Mr. McCormick, do you have any objections to --

MR. MCCORMICK: No objections, sorry.

CHAIRMAN CALIBOSO: Thank you.

Anything else, Mr.Itomura?

MR. ITOMURA: Nothing further, Chair.

CHAIRMAN CALIBOSO: Mr. McCormick?

MR. MCCORMICK: Yes. The Department of Defense has two documents which we showed the other parties. They're just tables, one taken from the Federal Reserve list of just the rates of return on Treasury bonds from 1993 to 2008, and the other is page 2 from the Regulatory Research Associates Regulatory Focus dated April 2nd, 2009, from which the numbers in the original Morin testimony were drawn.

And I'll distribute copies of that at this time.

MR. WILLIAMS: We have no objection, Mr. Chairman.

MR. ITOMURA: The Consumer Advocate has no objections.

CHAIRMAN CALIBOSO: Thank you.

One you distribute those documents, we'll take those into evidence as well.

MR. MCCORMICK: These are the identified marked copies.

Should I give those to the reporter?

CHAIRMAN CALIBOSO: Yes.

(DOD Hearing Exhibit Nos. 1 through 3 were marked and received into evidence.)

MR. WILLIAMS: Mr. Chairman, if we could have a second copy for the witness.

CHAIRMAN CALIBOSO: Mr. McCormick, could you slowly, again, identify which is Exhibit 1 and which is Exhibit 2 for the DOD?

MR. MCCORMICK: Certainly, Mr. Chairman.

Exhibit No. 1 is the list which is a very small print that was taken off the internet site at the Federal Reserve with the larger numbers repeated below and that is the Treasury bond rates from 1993 -- beginning in 1993.

The second document, which is DOD Hearing Exhibit No. 2, is page 2 from the Regulator Focus printed on the 2nd of April 2009.

CHAIRMAN CALIBOSO: What's the title at the top of that page?

MR. MCCORMICK: It just has Average Equity Returns

Authorized January 1990 through March 2009.

CHAIRMAN CALIBOSO: Thank you.

Anything else?

MR. MCCORMICK: Not at this time.

CHAIRMAN CALIBOSO: Mr. Williams, HECO S-1701, do we have?

Is this one of the exhibits you mentioned today or just an additional piece?

MR. WILLIAMS: S -- actually, it shouldn't have been passed out, yes, but it's an existing exhibit that's going to be used in closing.

CHAIRMAN CALIBOSO: Okay. So we can just hang on to it.

MR. WILLIAMS: We're a little premature on this one.

CHAIRMAN CALIBOSO: If I could have all the witnesses identified and if the witnesses could stand, we'll swear them in all at once.

Mr. Williams, your witnesses?

MR. WILLIAMS: Thank you, Mr. Chairman.

We have three witnesses for this panel: Dr. Roger Morin, Mr. Steven Fetter, and Mr. Tayne Sekimura. Ms. Sekimura has been sworn in already.

CHAIRMAN CALIBOSO: Thank you.

Mr. Itomura?

MR. ITOMURA: The Consumer Advocate has Mr. David Parcell.

CHAIRMAN CALIBOSO: Thank you.

Do you solemn swear or affirm that testimony you're about to give will be the truth, the whole truth, and nothing but the truth?

ALL WITNESSES: I do.

CHAIRMAN CALIBOSO: Thank you. You may be seated.

Back to you, Mr. Williams.

MR. WILLIAMS: Thank you, Mr. Chairman.

Our first witness is Dr. Roger Morin.

DIRECT EXAMINATION

BY MR. WILLIAMS:

Q. Dr. Morin, could you, please, state your name and title, please?

A. My name is Roger A. Morin. My title is Emeritas Professor of Finance at the Robinson College of Business, Georgia State University, and I'm also the Distinguished Professor of Finance for Regulated Industry at the National Center for the Study Regulated Industry also located at Georgia State University, Atlanta, Georgia.

Q. In this proceeding, Dr. Morin, you have sponsored testimony marked as HECO T-19, HECO RT-19, as well as hearing Exhibit 7 and related exhibits and information responses; is that correct.

A. That is correct.

Q. Do you have any corrections to RT-19?

A. No corrections.

Q. There's two corrections, Dr. Morin.

A. On the rebuttal.

Q. Yeah, RT-19.

A. Oh, RT-19, excuse me. I have two typographical corrections. Page 54 -- page 53, excuse me, line 20.

The number 130 should be 90 and the bracketed expression, instead of 1.3 percent, it should be .9 percent.

The other correction is on page 54, line 18. The number should be 45 instead of 35 basis points.

Q. Before you begin you're summary, could you briefly summarize your background and experience for this Commission.

A. Well, I was born and raised in Canada and my first degree was Engineering in Physics at the McGill University in Montreal, Canada. Then I took an MBA in Finance; and, then I took an interest in finance and took Ph.D. in Finance in Economic Metrics at the Wharton School of Finance, University of Pennsylvania.

I've done all the things that professors do, publish in journals and all of that stuff. And with respect to what's going on here, I published several books that had to do with cost of capital. The first one in 1984 was entitled Utilities Cost of Capital. The second one was entitled

Regulatory Finance in 1994. You know, just recently I published the latest version of that. It's entitled the New Regulatory Finance.

I do a lot of seminars, both in front of commissions and before industry; frequently, act as a consultant for both commissions and companies.

In terms of regulatory experience, I think this is my 250th case, if my memory is correct; and, I've appeared before 46 states, nine provinces, in three different countries; so, that's sort of the profile of what I'm all about.

Q. Thank you, Dr. Morin.

Could you summarize the purpose of your testimony in this proceeding?

A. Yeah. I was asked to provide the Company with an independent appraisal of the fair rate of return on the equity capital that's invested by HECO and it's electric utility operations. And the rate of return that I'm recommending has to be fair for the ratepayer and has to allow the Company to attract capital; and, more importantly, these days, it has to maintain the Company's financial integrity; and for that to happen, that rate of return has to comparable to returns that are offered on comparable risk investments.

Q. Given that you filed an update, could you briefly summarize your original findings concerning Hawaiian

Electric's cost of common equity at this time?

A. Yeah. My original findings were based pre-financial crisis last May of 2008; and, if you look at Exhibit 7 that was passed out, which is my updated recommendation, Exhibit 7, there is a table there.

Q. That's the table on page 2?

A. On page 2. And the first column compiles my original estimates of the Company's -- or towards the industry's cost of equity.

And if you glance down the first column of numbers there, you can see the numbers are pretty consistent, around 11 percent, the mean is 11 percent, the truncated means, 11 percent, the median is 11 percent, the midpoint is 11.1 percent.

So I felt pretty good about the 11 percent central tendency; and, this, of course, was before the financial crisis in May of 2008. And, at that point in time, I did adjust this 11 percent upward by 25 percent in order to recognize the Company's very small size and also the presence of all these what we call debt equivalents, its imputed debt, which look like and smell like debt, as far as the balance sheet is concerned; so, because of that, I did increase it by 25 basis points; and, of course, that was before the financial crisis.

Then I did another update towards the end of financial crisis last March and, finally, today I'm pleased to report yet another updated recommendation post-financial crisis, and those results appear on that same table on page 2 in the second column of numbers.

And looking down the column of numbers, you can see that the results range from 9.4 to 11.4. The average is about 10.7, the median is 11, the truncated mean is 10.8 percent.

So this led me to a conclusion that an ROE somewhere in the range of 10.75 to 11 would be pretty reasonable. However, because of the various decoupling and associated mechanisms that are involved in this case, which would lower the risk of the Company, I think the lower end of the range would be an indicator.

So, in other words, I've allowed for 25 basis points reduction in ROE, I hope, to account for the risk mitigating mechanisms that are embedded in the energy agreement.

So I think those agreements should be sanctioned and adopted by the Commission. I feel pretty strongly about that in light of the burden that's imposed by the renewable portfolio standard over the next few decades.

I also noted in both my direct -- especially, in my direct, that the energy clause should be, of course, renewed, and that's pretty standard practice and mainstream policy in the electric utility industry and it's in the interest of all stakeholders, shareholders, investors, ratepayers alike that this clause be maintained.

Finally, at the end of my rebuttal, there's a discussion about RDM, the Revenue Decoupling Mechanisms; and, again, I would encourage the Commission to approve all of these mechanisms in order to maintain, just maintain the existing bond rating.

I'm very concerned. I think all the parties should be very concerned that the Company's bonds are on negative outlook by both Moody's and Standard & Poor's and that's rather unusual to have two negative outlooks which really increases the probability of a further downgrade, so we don't want to do that at all. That's not an interest of ratepayers or investors.

So I would urge you to adopt all these risk reduction mechanisms to at least solidify and maintain the existing bond rating and perhaps get it back to -- or get off negative outlook and back to at least BBB.

And this is going be very important in the future because the Company is embarking on this -- on a certain voyage, this rather fascinating voyage, and I think Hawaii is going to be the example for, you know, the rest of the world in the sense about how to deal with the energy crisis; and, those are front with risks, of course, benefits and risks, and the risks are related to the fact that the Company has to raise something like $1.8 billion over the next five years, half of that from debt, and it's imperative that this debt be raised as a BBB company and not a downgraded company below BBB. That would cost the ratepayers a lot more; so, I do repeat that from my direct testimony.

Now with regards to the rebuttal, I have to be very, very brief, the witness for the DOD, Mr. Hill, is recommending 9.5 percent, and Mr. Parcell, for the CA, is recommending a range of 9.5 to 10.5.

A very brief summary of my rebuttal. As far as Mr. Parcell and I are concerned, there's a lot of agreement between our testimonies; and, I agree with a lot of things that he has done, his sample of companies, the use of growth forecasts, the results of his DCF and so on and so forth.

There's really only two major disagreements between Mr. Parcell and myself. One has to do with floatation costs. I believe floatation costs is a legitimate cost of doing business and equity is not free, whereas, he does not.

And the second major disagreement is the adjustment for the revenue decoupling mechanism. He believe it's 50 basis points. I believe it's 25 basis points.

So that's really the major differences between Mr. Parcell and myself, and we agree on a lot of other things.

With regards to Mr. Hill, who unfortunately is not here, I'll only make one comment. I think his recommendation of 9.5 percent would really endanger HECO's credit quality and the Company is already on negative outlook and that would, sort of, take it over the edge and undoubtedly be downgraded.

And, again, I repeat that the Company is embarking on mutual range and on unknown territory with all kinds of new operating risks with regards to the RPS requirements and this is not time to inflict a noncompetitive allowed ROE.

So I believe in my 10.75 percent to be a fair and reasonable recommendation; also, very consistent with the last quarters that allowed ROE throughout the country were vertically integrated utilities.

And that completes my summary. I hope it wasn't too, too long.

MR. WILLIAMS: Mr. Chairman, the witness is available for questioning.

CHAIRMAN CALIBOSO: Thank you.

Mr. Itomura?

CROSS-EXAMINATION

Q. Good morning, Dr. Morin.

A. Good morning, sir.

Q. We're going to focus on the questions regarding the impact of the decoupling.

And, if you could, I'm going to refer you to page 67, lines 13 through 14, of your rebuttal testimony, which is HECO RT-19.

A. I have it.

MR. ITOMURA: Commissioners, I guess, you could let me know if you're ready.

CHAIRMAN CALIBOSO: What page, again?

MR. ITOMURA: Page 67, lines 13 through 14.

CHAIRMAN CALIBOSO: Okay. Go ahead.

BY MR. ITOMURA:

Q. Dr. Morin, is it true that you state here that you agree with the notion of a downward risk adjustment if the revenue decoupling proposal is adopted by this Commission and anything else remaining constant?

A. Yes.

Q. Okay. Jumping ahead to your response to CA-I -- I mean, CA-RIR-16.

Did you sponsor this response?

A. CA-R-16 (sic) which discusses analyst forecasts, yes, I did sponsor it.

MR. WILLIAMS: But I believe he referred you to RIR.

THE WITNESS: RI, oh, yes, I'm sorry.

Yes, I did.

BY MR. ITOMURA:

Q. If you could, could you please read the first sentence of your response to our rebuttal information requests?

A. Sure. To the best of Dr. Morin's knowledge, no electric utility currently possesses revenue decoupling and other related mechanisms that are as expensive as other proposed mechanisms of HECO.

At the same time, few, if any other, electric utilities face the risk factors and the challenges faced by Hawaiian Electric, including, one, the weakening of the regional economy; two, the Company's dependence on the huge capital spending program which requires external financing; three, weak financial metrics; four, uncertain feasibility and unknown costs of the energy agreement plans; and, five, regulator risks, given the details of major provisions of the energy agreement have yet to be determined.

The fact remains that despite the presence of such mechanism the Company's bond rating compared to the industry average, of course, since then the Company's bonds have been put on negative outlook by both Moody's and S&P.

Okay. Do you want me to keep reading or . . . ?

Q. No. I, actually, asked you just to focus on the --

A. Oh.

Q. -- first sentence --

CHAIRMAN CALIBOSO: Mr. Itomura, could you do me a favor and have him read that question?

MR. ITOMURA: Sure.

BY MR. ITOMURA:

Q. Dr. Morin, if you could read the question stated to which you responded to? It's right above.

A. The question reads, Please, identify which of the comparable companies that have replaced revenue decoupling and other related mechanisms that is as extensive as the proposed decoupling mechanism of HECO.

Q. And, again, in your response, your first sentence stated no electric utility currently possesses revenue and decoupling and other related mechanisms extensive as the proposed mechanism of HECO. Correct?

A. That is correct; but, on the other hand, very few, if any, electric utilities face the risk factor that the Company is facing at this time as well.

Q. Thank you.

Your proposed adjustment for decoupling is .25 percent as you state on page 68 of RT-16, your rebuttal testimony. Correct?

A. Yes, sir.

Q. You're aware of the Consumer Advocate's, Mr. David Parcell, proposing a decoupling adjustment of .50. Correct?

A. I am.

Q. Did you prepare the response to CA-RIR-19?

A. Yes.

Q. In this response you site Potomac Electric Power Company case in Maryland. Correct?

A. Yes.
Q. Were you the cost of capital --
A. Yes.
Q. -- witness for P-E-P-C-O, PEPCO, the acronym for Potomac Electric Power Company, in that proceeding?
A. Yes, sir.
Q. Would you agree in that proceeding the Maryland Commission determined that PEPCO's cost of equity, in absence of decoupling, was 10.5 percent and that they reduced the ROE by 50 basis points to 10.0 percent to account for decoupling?
A. Yes, I agree with that; but, again, note that this is a pure wire electric utility company that's unencumbered by the generation function, unlike HECO; so, the risks of that company are quite different than those faced by HECO.
Q. Okay. Going back to your response to CA-RIR-19, you also state -- cite the Potomac Electric Power Company case in the District of Columbia. Correct?
A. Yes, sir.
Q. Did you testify in that on behalf of PEPCO?
A. Yes.
Q. At the very bottom of your answer to CA-RIR-19, you state that PEPCO is a wires company which you repeated; did you not?
A. Yes, sir.
Q. You also state here that PEPCO has different risks

from HECO. Correct?

A. Absolutely, yes.

Q. Have you reviewed the District of Columbia Commission's September 28th, 2009, order in that case approving PEPCO's decoupling proposal?

A. Yes.

Q. Therefore, are you aware that the Commission's order stated in paragraph 9, page 3, that order that you had proposed a .25 percent ROE reduction to reflect the value of the DSA, which is their decoupling mechanisms. Correct?

A. Yes, sir.

Q. This is the same reduction that you're now proposing for HECO. Correct?

A. That's correct.

Q. Are you aware that the D.C. Commission also determined in paragraph 29 on page 9 of its order that a 50 basis point downward adjustment to the ROE was a proper -- I'm sorry -- was proper to reflect the lower risks associated with the decoupling adjustment. Correct?

A. I am aware of that, but I'll give you the same answer that I gave you for the previous question, that PEPCO D.C. is not encumbered by the power generation function and it's a far less risky company than HECO, does not face the challenges to be faced by this Company in terms of meeting the RPS standard, nor are these companies on negative outlook.

Q. Yes, I understand that's consistent with your written response to CA-RIR-19.

MR. ITOMURA: At this time, we have no further questions for this witness.

MR. MORIN: Thank you, sir.

CHAIRMAN CALIBOSO: Thank you.

Mr. McCormick?

MR. MCCORMICK: Yes, we have some questions. Thank you, sir.

MR. MORIN: I'm sorry, Mr. McCormick, that your witness could not be here. It's too bad that Mr. Hill was unable to attend.

MR. MCCORMICK: Yes, we greatly miss --

MR. MORIN: Yeah.

MR. MCCORMICK: -- his absence but thank you for that consideration.

CROSS-EXAMINATION

BY MR. MCCORMICK:

Q. But let's refer back.

Dr. Morin, in your direct testimony at pages 51 and 52, you noted that your equity cost estimates averaged about 11 percent. Correct?

A. Yes, sir.

Q. Why did you believe HECO has a relatively higher risk and recommended a return on equity of 11.25 percent at that time?

A. Because the components and stipulations of the energy agreement were not yet in point, so to speak; and, since May 2008, a lot of water had gone under the bridge; and, I believe, that since then, the company's higher risk status --

Q. Right. I'm just asking about on the basis for your original testimony.

A. There's were two bases. Number one, the very small size of the Company, and this Commission has recognized this in the past. And, number two the imputed debt that we call debt equivalence which is purchase power contracts, which really inflate the actual debt ratio. The Company's financial risk is higher than average, so that's the answer.

Q. Okay. So in your rebuttal testimony, page 72, you noted the average of your every day cost of equity analysis of 11.25 percent rounded to the nearest cortile, as put it; is that correct?

A. Yes, sir.

Q. Page 72.

A. We're on the direct, still on the direct?

Q. No.

A. In the rebuttal?

Q. In the rebuttal.

A. Give me a chance here. Yes, I have it. Yes, I have it.

Q. However, in that rebuttal testimony, you did not add an additional 25 basis points and instead indicate that due to the decoupling and the various riders contemplated in Hawaiian Clean Energy alternative, HECO's investment risk is reduced; isn't that right?

A. That's correct, it is.

Q. And with an average equity cost estimate for your sample group of electrics at 11.25 percent, you recommended an allowed return for HECO with adoption of the HCEI initiatives of 11 percent to 11.25 percent. Correct?

A. That's correct.

Q. With an equity cost estimate of 11.25 percent, your recommended return on equity ranges from zero to 25 basis points below the average for your electric sample group; is that right?

A. Correct. Let's not forget the supplemental, though, the --

Q. Right --

A. -- current --

Q. -- and I'm going to turn to that next.

In your most recent updated testimony, you used a range of 10.75 to 11 percent ROE. Correct?

A. That is correct. That's Exhibit 7.

Q. And you selected 11 percent without decoupling.

Correct?

A. That's correct.

Q. And 10.75 percent with decoupling?

A. That is correct, sir.

Q. So you agree that decoupling reduces risk?

A. Yes, I do; everything else being constant, yes.

Q. Okay. Let's talk about your CAPM results first since that's you're first method discussed in your testimony.

The CAPM risk is a risk premium type model. Correct?

A. Yes.

Q. And to estimate the cost of equity with that model we start with a long-term Treasury bond yield, in most cases, and add to that a risk premium which equals the general market risk premium times a relative risk measure beta; is that correct?

A. That is correct.

Q. And you've used the same formulation for the CAPM in both your direct and rebuttal testimony; is that correct?

A. That is correct.

Q. Your rebuttal CAPM result, 9.25 percent --

A. Yes.

Q. -- contains an upward adjustment for floatation costs; does it not?

A. All of my estimates in the direct, the rebuttal and my updates, ever since I started in this business, I've always contained a floatation cost adjustment because equity is not free.

Q. So in your rebuttal that was 30 basis points like in the direct testimony; is that right?

A. That's correct, sir.

Q. I'd like to confirm that your CAPM remained the same 9.2 in your update --

A. That's correct.

Q. -- the most recent.

Okay. Now the ECAPM is a version of the CAPM which uses a slightly different formula as shown on page 30 of your direct; is that right?

A. That's correct. It's a sort of angron species of the plain vanilla capital price of pricing.

Q. And that also relies on long-term Treasury bond yields, correct, along with the beta and market premiums that it puts to the formula?

A. The same three inputs.

Q. And the ECAPM formula that you used in your rebuttal is the same as that used in your direct testimony. Correct?

A. Absolutely.

Q. Now turning to what is labeled historical risk premium electric in your direct testimony.

A. Yes.

Q. And compared to your risk premium electric shown in your rebuttal --

A. Yes.

Q. -- those analyses are not the same, are they?

A. Well, they're -- yeah, they are basically the same. The only difference between the two is that I was using the Moody's Electric Utility Index in the original direct testimony, dated May 2008, or as subsequent to that Moody's was purchased by Merchant and, of course, the index was discontinued; so, in light of that discontinuation, I decided to use the S&P Utility Index instead of the Moody's Electrical Utility Index.

Q. Okay.

A. And I can assure you that the results are virtually identical.

Q. So in your direct testimony you added the historical difference between the return on electric utility stocks and long-term government bonds to the current yield on long-term government bonds, correct --

A. That's correct --

Q. -- in your direct?

A. -- using the Moody's index.

Q. All right. In your direct testimony you added the long-term historical risk premium of 5.7 percent to the

then-current T bond yield at 4.6?
A. That's correct.
Q. To get an equity cost estimate of 10.3 percent without floatation costs?
A. That's correct, sir.
Q. And 10.6 percent with floatation costs?
A. Yes, sir, that's correct.
Q. Now you note in your rebuttal testimony that the current yield on long-term Treasury bonds was about 4 percent at the time of your update. Right?
A. At the time of the rebuttal update --
Q. Correct --
A. -- yes. Today's it's 4.3.
Q. Right. So if we updated your original risk premium method and added the historical 5.7 percent risk premium to the current T Bond yield, at that time, rebuttal time of 4 percent, the result would have been 9.7 percent without your 30 basis points for floatation costs and 10 percent with it. Correct?
A. Arithmetically, you're correct --
Q. Okay.
A. -- but, of course, today it's 4.3 not 4.10.
Q. But the risk premium electric analysis in your rebuttal is different from the analysis of your debt testimony and you produced a much higher result, correct, as you

explained earlier?

A. I wouldn't say much higher result, but the world changed drastically after September 2008 with the financial crisis --

Q. Okay.

A. -- and --

Q. Okay. Thank you. And in your rebuttal --

MR. WILLIAMS: Mr. Chairman, could the witness be permitted to conclude his answer?

MR. MCCORMICK: He answered the question. If he wants to add an explanation, I'm sure the other counsel will give him an opportunity.

MR. WILLIAMS: Mr. Chairman, that's --

CHAIRMAN CALIBOSO: The objection is actually sustained.

MR. MCCORMICK: Okay.

CHAIRMAN CALIBOSO: Please let him the answer question. He needs a chance to --

MR. CARVER: Okay.

CHAIRMAN CALIBOSO: -- fully explain his answer.

Dr. Morin?

BY MR. MCCORMICK:

Q. Put us in a higher result would you say or was not a much higher result?

A. Well, that's not what I said.

Q. Okay. Well --

A. I said the reason for using the utility cost of debts instead of Treasury bonds is because after the financial crisis, the spreads between utility costs and Treasuries shot through the roof; and, I think it makes a lot of sense to say that the cost of equity tracks the utility cost of debt much better than it attracts the Treasury bond yields since the financial crisis, because the spreads exploded after September 2008 and should be behoove me to do the analysis on the basis of utility bond yields instead of government bond yields.

Q. Okay. And you followed that in both your rebuttal and your update then?

A. Yes; and, I've done that in all of my testimonies following the financial crisis which began in September 2008.

Q. Okay. And instead of using the base of long-term Treasury bonds, which you indicate have a current yield of 4 percent, you've changed to that different basis, an A-rated utility bonds, which you indicate have a current 6.2 percent yield; is that correct?

A. That's correct.

MR. WILLIAMS: Mr. Chairman, it misstated his testimony. He said the current yield is 4.3 percent not 4 percent.

CHAIRMAN CALIBOSO: Mr. McCormick?

BY MR. MCCORMICK:

Q. I was saying in your rebuttal and update -- oh, okay. We are speaking here instead of using the base of long-term Treasury bonds, which you indicate in his rebuttal, have a current yield of 4 percent, you have changed to a different basis in your rebuttal, A rate in utility bonds, which you've indicated have a current 6.2 percent yield?

A. That is correct.

Q. And you continued that in the update?

A. Yes. Ever since the financial crisis, I tracked equity costs using utility cost of debt instead of Treasury bonds.

Q. Okay. So if you had not noted changing conditions on the market, but if you had simply updated your original risk premium analysis, the result would have been about 10 percent on your rebuttal; but, as a result of changing that analysis, you produced an equity cost estimate of 11.5 percent with floatation costs; is that correct?

A. Right, if I had been an arithmetic robot, yes, your quite correct. But you're suggesting I should be impervious to the financial crisis that completely changes the rules of the game, and I recognize that by using utility costs as debt as a base, instead of government bonding.

Q. I'm not suggesting anything. We just want to go over the facts here. Thank you.

Again, looking at page 51 of your direct testimony, we see a method called "allowed risk premium." Correct?

A. Yes.

Q. As you note on pages 34 and 35 of your direct leading up to that, you looked at the difference between equity returns allowed electric utilities and then current long-term Treasury bonds over the most recent 10 years, which average then at 5.6 percent for the past 10 years; is that correct?

A. Yes, sir.

Q. And that risk premium added to a 4.6 percent Treasury bond yield, which was the yield at the time of your original cost cap analysis, produced an equity cost estimate of 10.2 percent; is that correct?

A. That is correct.

Q. With long-term Treasury bond yields of 4 percent that's used in your rebuttal testimony, 5.6 percent allowed return risk premium would indicate an equity capital costs of 9.6 percent. Correct?

A. That's correct; mathematically, yes.

Q. Okay. So although you performed an allowed return of risk premium analysis in your direct testimony, when the yield on long-term Treasuries fell, you simply omitted that analysis in your rebuttal. Correct?

A. Yes, I did; again, because of the financial crisis there were no orders, very, very few orders after September of 2008; and, if I had used the same analysis, I would not have captured the post-financial crisis effects on the cost of capital.

Q. So as you stated then in your direct that it was due to scarcity of decisions?

A. Very scarce decisions, very few, just a handful.

Q. Okay. On page 71 of your rebuttal testimony at lines 12 and 13 you say you omitted that allowed return of risk premium because of the scarcity decisions in the latter part of 2008?

A. That's correct.

Q. Okay. This analysis looks at that over 10-year period, not just one quarter?

A. Yes, it does.

Q. Also, you're familiar with Regulatory Research Associates publications. Correct?

A. I am.

Q. And you relied on their data for the April report for the first quarter in your allowed return risk premium analysis. Correct?

A. I did.

Q. And that should be page 2 that was presented to you as our Hearing Exhibit No. 2.

Do you have that there with you?

A. I have it.

Q. And that should be the same information. Correct?

A. Yeah, that's -- that report is dated, I think, April.

Q. Yes, the 2nd of April.

A. And, of course it's pretty stale.

Q. I understand.

A. The report that just came out a few weeks ago updates that data to recognize many, many, many more decisions.

Q. I understand. So, at that time, there was 37 ROE cases decide for electrics in 2008?

A. Correct.

Q. While, in 2007 and 2006, there were 39 and 26 cases decided with respect to these; is that right?

A. That's correct.

Q. In your update, which is Hearing Exhibit 7, page 3, you stated that you omitted allowed return risk premium because of the, quote, circularity inherent in this approach; is that right?

A. Yes, various parties had some reservations about this particular technique on the grounds that it was circular. We were trying to determine an ROE and we're looking at other allowed ROEs, so there's an element of circularity in this methodology and I thought it was best to simply not use it anymore.

Q. And, yet, you did use allowed returned risk premium in your direct testimony, didn't you?

A. Yes, three years ago, yes.

Q. Okay. The Federal Reserve website indicates the average yield on 20-year Treasury bonds in 2008 was 4.36 percent, if you refer to our Exhibit No. 1; and, I don't think it's any different from what you've cited in your reports.

That implies an averaged allowed return risk premium in 2008 of 6.1 percent. Correct?

A. Correct.

Q. Because it would be added, okay.

Now let's turn to your allowed risk premium analysis in your direct testimony, page 35.

A. I have it.

Q. That graphs shows the annual difference between the allowed ROEs and 20-year Treasury bond yields from 1998 through 2007. Correct?

A. Yes, it does.

Q. And we see that, in 1998, the allowed return risk premium was 6 percent, just about what it was in 2008. Correct?

A. Correct.

Q. So if we eliminate 1998 and add 2008 to these data, the average allowed return risk premium within the most recent 10 years would be very similar to the 5.6 percent that you used in your direct testimony; would it not?

A. It would; but, I would also add 2009, where the averaged allowed ROE in excess of 10.5 percent and Treasury bonds are about 4.3 percent it would be much --

Q. Well, I said --

A. -- higher values --

Q. Excuse me. We'll be glad to address that in a few minutes.

A. Okay.

Q. Now moving on to your DSE (sic) analyses.

A. DCF you mean?

Q. DSE, yes, excuse me. DSE?

A. DCF.

Q. DCF, okay.

A. Discounted cash flow.

Q. I read it wrong.

THE COURT REPORTER: Gentlemen, you need to talk at one at a time or your record is going to be --

MR. MCCORMICK: Okay.

THE COURT REPORTER: -- challenging.

MR. MCCORMICK: I'll restate it.

BY MR. MCCORMICK:

Q. Now moving on to your DCF analyses, in your direct testimony you used two sample groups, one drawn from Moody's electric utilities, which would have been, as you said the direct; is that correct?

A. No. The first sample -- there's two samples. One on of them is based on Moody's --

Q. Okay.

A. -- Electric Utility Index. The other sample is a sample of investment-grade dividend-paying vertically integrated electric utilities like HECO.

Q. Okay. And we see on page 51 of your direct, you have two DCF results for each group. One, using Value Line projected earnings growth and the other using Zacks projected earnings growth. Correct?

A. That's correct.

Q. Now turning to rebuttal testimony, on page 72, you have the last two DCF results labeled as Moody's Electric Utilities, but the narrative portion of your testimony it indicates you've used Standard & Poor's instead of Moody's, correct, as you explained earlier?

A. For reasons explained earlier, I switched to --

Q. So that was --

A. -- S&P.

Q. -- so that was probably just a typo there where when it said Moody's?

A. Yes, that's correct. That's S&P.

Q. Okay. So the last two DCF results are mislabeled just by that or actually performed on different group of companies than corresponding DCF analyses in your direct testimony; is that correct?
A. One is done on Moody's. The other one is done on the S&P and there's a tremendous amount of overlap between the two. The Moody's index doesn't exist anymore so.
Q. Right, but they are a different set of companies then?
A. No, they're very similar.
Q. Okay. In your update you added another graph from the S&P utilities, didn't you; namely, companies with more than 50 percent regulated revenues?
A. Yeah, I further censored the sample to make sure that I have predominantly regulated companies; so, on average, my sample of companies has about 80 percent of their revenue from regulated operations; and, that would eliminate the effect of unregulated operations from the data.
Q. And your updated testimony relied on the ROE regulatory focus dated October 2, 2009. Correct?
A. Correct.
Q. And do you have a copy of that with you?
A. I do have the latest report from Regulatory Research & Associates, dated October 2, 2009.
Q. And do you have that with you?

A. Yes.
Q. And that's on which you based this table. Correct?
A. Yes.
Q. Which is at page 18 of 18 on HECO Hearing Exhibit 7?
A. Correct.
Q. Okay. Your chart includes 21 cases, five of which are identified as involving decoupling mechanisms. Correct?
A. Let me get the chart here.
Correct.
Q. You listed Idaho Power twice, didn't you?
A. Yeah, there were two decisions.
Q. There are two decisions listed on page 4 of that ROE regulatory focused, dated October 2nd, 2009. Correct?
A. Correct.
Q. And did you read Footnote 9 for that second listing?
A. No, I did not.
Q. It indicates, if you would look at, please, that this was not a cost of capital equity case, they merely carried over the same number from the prior case?
A. The number was appropriate then.
Q. Read Footnote 9. Rate increase associated with implementation of advanced metering infrastructure return parameters of those adopted in the company's previous rates

case.

So this was not a new rate or setting of ROE, was it?

A. Well, they must have thought that the existing ROE was quite fair and reasonable.

Q. Okay. So they didn't redetermine it. Correct?

A. Correct.

Q. It was not one of the issues being considered, ROE list omits any reference for Southern California -- excuse me, any ROE for Southern California, Edison, doesn't it?

That's down the last one under the first section on page 4 of that particular report?

A. Let me get the --

Q. Certainly.

A. -- IR report.

Okay. I'm on page 4.

Q. Yes. So Southern California, Edison, for the listing there on the top block of cases, it does not list any ROE, does it?

A. That's correct, because, in California, they're on a three-year plan. The ROE is set for a three-year period in this index through interest rates.

Q. So you'll agree then that the indicated rate increase included an ROE that was set in 2007 according with Footnote 6?

A. Yes.
MR. MCCORMICK: One moment, Mr. Chairman.
CHAIRMAN CALIBOSO: Could you try to slow down a little bit as well, Mr. McCormick?
MR. MCCORMICK: Sure.
BY MR. MCCORMICK:
Q. Your chart also includes a listing for Nevada Power; is that correct?
A. Which chart are we talking about?
Q. Of the one you prepared.
A. Page 18?
Q. Correct.
A. Yes, I have it in front of me. It does include Nevada Power.
Q. Okay. And that is also drawn from the RRA report. Correct?
A. Yes.
Q. And do you have Footnote 10 from that report?
A. No. I have to look it up.
MR. MCCORMICK: Mr. Chairman, may I present this document?
CHAIRMAN CALIBOSO: Is that a hearing exhibit or is that in the record?
MR. MCCORMICK: After we set it with the witness yes.

CHAIRMAN CALIBOSO: Go ahead.
Do you have it Mr. Williams?
MR. WILLIAMS: I have no objection. I have my own copy.
MR. MCCORMICK: He has pages of it but apparently does not have all of it.
BY MR. MCCORMICK:
Q. I'm handing you a copy of it.
Is this the full report?
A. Yes.
Q. Okay. And in turning to the last page where the footnotes are listed.
A. Okay.
Q. The witness does have it.
Could you, please, turn to -- could you please read to us Footnote No. 10?
MR. WILLIAMS: Mr. Chairman, does the counsel have copies for the other parties or the Commission?
MR. MCCORMICK: We will make those once they are admitted.
CHAIRMAN CALIBOSO: Could you, please, make them available now and --
MR. MCCORMICK: They're already in here and he's already used it.
CHAIRMAN CALIBOSO: Where is it in the record?

MR. MCCORMICK: So this was used for the testimony that's not yet been made a hearing exhibit; so, we would propose it be used as DOD Hearing Exhibit No. 3; particularly pages 4, which includes the table we referred to and page 7 which includes the footnotes.

CHAIRMAN CALIBOSO: Thank you.

Do you have extra copies for the Consumer Advocate?

MR. MCCORMICK: We can have those made at the break if there's any copier. I apologize. We don't have it.

CHAIRMAN CALIBOSO: Any objections, Mr. Itomura?

MR. ITOMURA: Well, arguably, the Consumer Advocate hasn't had an opportunity to review that document. If we could withhold our objection or non-objection until we do get an opportunity to review that document.

CHAIRMAN CALIBOSO: This might be an appropriate time to take a break.

MR. MCCORMICK: May I make my comment, Mr. Chairman?

CHAIRMAN CALIBOSO: Yes.

MR. MCCORMICK: HECO Hearing Exhibit No. 7, page 18 of 18 is titled Regulatory Research Associates authorized ROEs through September 4, 2009. So this should have been, if anything, an exhibit that would have been presented by HECO since they adopted it and used it in their testimony.

CHAIRMAN CALIBOSO: I understand that, but it's just not in the record right now --

MR. MCCORMICK: Sorry?

CHAIRMAN CALIBOSO: -- is that correct?

It's not in the record yet?

MR. MCCORMICK: Only those that reference that's been included in the testimony so far.

CHAIRMAN CALIBOSO: Okay. Well, if we took a break now, would you be able to handle it now?

MR. MCCORMICK: If there's a copy machine available, certainly.

CHAIRMAN CALIBOSO: Okay. Let's take a 15-minute break and we reconvene at 10:10 -- oh, hold on.

Mr. Itomura?

MR. ITOMURA: If counsel for the Department of Defense also anticipates other similar references, if, maybe, at that time, they could make those copies as well.

MR. MCCORMICK: We do not.

CHAIRMAN CALIBOSO: Okay. All right.

Why don't we recess and come back at 10:10.

We're in recess.

(Whereupon, at 9:54 a.m., a recess was taken, and the proceedings resumed at 10:09 a.m., this same day.)

CHAIRMAN CALIBOSO: Good morning.

This hearing is reconvened.

Mr. McCormick, you have a third exhibit you'd like to share. We have copies of about three pages you gave to us without the cover sheets; so, I need you to read fully into the record the title of the document and what is published and complete identifying information.

MR. MCCORMICK: Yes, these three pages were taken from Regulatory Research Associates Regulatory Focus, dated October 2nd, 2009, major rate case decisions January through September 2009. It's basically an update to the same report or document that was used earlier in the prior testimony but this is through more of the year 2009 and the prior April copy was used; and, we are -- have introduced pages 4, 5, and 7 of that report as documents for use here.

CHAIRMAN CALIBOSO: As DOD Exhibit 3. Correct?

MR. MCCORMICK: Correct.

CHAIRMAN CALIBOSO: And I understand, Mr. Williams, you had an objection earlier, is that correct, Mr. Williams?

MR. WILLIAMS: That is correct, Mr. Chairman.

CHAIRMAN CALIBOSO: Okay. Mr. Itomura?

MR. ITOMURA: The Consumer Advocate has no objections.

CHAIRMAN CALIBOSO: Does the witness have a copy?

MR. MORIN: Yes.

CHAIRMAN CALIBOSO: Go ahead, Mr. McCormick.

CROSS-EXAMINATION (Continued)

BY MR. MCCORMICK:

Q. Okay. Again, your chart includes Nevada Power at line 11; is that correct?

A. Yes.

Q. And that is shown on the table DOD Exhibit 3, page 4 at the bottom of the page, or at least the last entry, it's the same Nevada Power; is that correct?

A. Yes.

Q. Under ROE it list 10.80 which is the number that you have included on your chart; is that correct?

A. Correct.

Q. It shows a Footnote 10 beside that entry.

Would you, please, turn to Footnote 10.

And I'm going to read that and you tell me if this is not correct.

"Reflects incentive ROE and ROR for demand side management programs and the Chuck Lenzie generating plant. Without the incentives, a 10.5 percent ROE was authorized."

Is that a correct reading of the footnote?

A. Yes.

Q. So, in effect, the actual ROE, as compared with other companies, it's more likely 2.5, would you agree with that?

A. No, I don't.

Q. So you don't think that incentive, which they specifically singled out, was worthy of noting?

A. I'm not sure that investors are -- with a degree of sophistication that you attribute to them -- as far as reading footnotes for the world to see it's 10.8 percent.

Q. Okay. Now because we've looked at the chart, you would agree that for Southern California Edison they included no ROE numbers on the RRA exhibit which is, again, the first page or page numbered 4 of DOD Exhibit 3, and if that was actually a rate set in 2007 which, by its ruling, was allowed to remain in effect for a period of years. Correct?

A. Yes, it was being fair and reasonable and there was no reason on to change it.

Q. Isn't it true that it wasn't even addressed for change?

A. That is correct.

Q. Okay.

A. There's always a possibility of a show-cause order if it was deemed inadequate.

Q. And we look further down at the Idaho Power, the second listing, where it shows the amount and it shows only an amount that was no ROE and has a Footnote 9; yet, you, on your chart, had it in 10.5 as an ROE; did you not?

A. Yes.

Q. But that, according to the Footnote 9, was not a case that considered return on equity or capital, was it?

A. Same answer as before.

Q. Okay. And then, as we've just discussed, there is an authorized ROE without the incentive in the Nevada Power Case of 10.5; is that correct?

A. The authorized ROE is 10.8 --

Q. Again --

A. -- in the --

Q. -- and not argue, but to read 10 it says, Without the incentive, a 10.5 percent ROE was authorized.

A. Okay.

Q. Now subject to verification and numbers, if we were to delete the duplicate entry of Idaho Power and the duplicate entry of decoupling on line 5 of your table, because that was not a case that addressed rates of return; and, if we eliminate the Southern California Edison Company, because it was not a decision issued in 2009 but was already included in the statistics for 2007 raised in your direct testimony; and, we were to alter Nevada Power the 10.8 to the 10.5, which they explained was an authorized ROE without incentives, subject to verification, that would give us an average of 10.53 but with decoupling of 10.16 according to these tables; is that correct?

A. As a matter of the arithmetic, I will take it subject to check.

Q. Thank you.

MR. MCCORMICK: We have no further questions.

CHAIRMAN CALIBOSO: Thank you.

We may have a few questions right now, the Commission; but, we would also like the parties to know that after the witnesses from both sides have testified, we may have additional questions for all of the witnesses or some of the witnesses.

Dr. Morin, I'd just like to understand your risk assessment for Hawaiian Electric as you mentioned in the beginning.

You mentioned in several places in your testimony. Let's start with T-19, page 4, at the top. And you've referenced this before in direct testimony and in cross-examination, where you've added .25 percent to the return on common equity that you've estimated due to the added risks, but would you just, once more, explain the added risks component and why you felt that additional risks needed to be accounted for.

MR. MORIN: When I prepared the direct testimony in the summer of 2008, which was for than a year ago, the cost of equity for the average risk utility was 11 percent; and, at that time, I considered HECO to be riskier than the average utility because of its very small size; and, this is something that the Commission has recognized in the past orders and that, if my memory serves me right, the Commission used to apply a 50 basis points premium to recognize the size effect.

So at the time I thought it was 25 because of the size effect and, also, because of what we call imputed debt, which is essential effected debt; so, if you'd reintroduce the debt like effects of purchase power contracts into the balance sheet, the Company's debt ratio is actually much higher than average, because this Company has a large, large amount of purchase power contracts and more so than the average utility.

So, again, for those two reasons, size effect and financial risk in the past, I've added 25 basis points. Since then, of course, a lot of water was pulled onto the bridge, and all the decoupling mechanisms have arrived on the scene; and, I think, there's no longer a need to apply that risk premium, because I now considered the company to be about average in terms of risk.

As a matter of fact, instead of adding the risk premium, I've substracted the risk from the 25 basis points. If the Commission were to adopt the various mechanisms in the energy agreement this, Company would become less risky than average on the grounds of those mechanisms.

CHAIRMAN CALIBOSO: Okay. Let me understand that. So your initial analysis, you went through the analysis, you came up with a figure, and then you added .25 --

MR. MORIN: Right.

CHAIRMAN CALIBOSO: -- with that additional risk?

MR. MORIN: That's correct.

CHAIRMAN CALIBOSO: Now, using your analysis, your conclusion is, if the decoupling is approved, the result of your analysis would be reduced by .25?

MR. MORIN: That's correct, to reduce my estimate based on the average risk utility by 25 basis points.

CHAIRMAN CALIBOSO: All right. So you're not adding point .25 to begin with?

MR. MORIN: No, I'm not.

CHAIRMAN CALIBOSO: Okay. And just for clarification anyway, in comparing HECO with the other companies in your comparison group, have you checked to see whether or not those groups contained companies that are of comparable size or are all of those companies not of comparable smaller size?

MR. MORIN: On average, the companies are much larger than HECO --

CHAIRMAN CALIBOSO: Okay.

MR. MORIN: -- in the sample companies.

CHAIRMAN CALIBOSO: And what about the imputed debt issue. Did you confirm that those companies, as well, are not subject to the same type of imputed debt issues due to power purchase agreements?

MR. MORIN: That is correct. In one of the responses to one of the interrogatories, I think, I have a little table that computes the amount of purchase power;

essentially, it has a percentage of generation, HECO was one of the highest in the bunch.

So, in other words, this Company has more than the average amount of purchase power contracts and would likely to have a lot more if the Commission approves all of these RPS in the future, it's going to depend on a lot of third parties and it's going to be huge amounts of purchase contracts, which are like debt; so, that's a concern that I have.

CHAIRMAN CALIBOSO: So let me ask you if the problem is third-party purchase power contracts, which eventually gets translated into imputed debt --

MR. MORIN: Correct.

CHAIRMAN CALIBOSO: -- which adds to the Company's risk --

MR. MORIN: Correct.

CHAIRMAN CALIBOSO: -- what if the Company built those same generating units themselves and put them on their balance sheet would the added risk be any different?

MR. MORIN: It will be the same if these units were financed with debt capital. Debt is debt is debt is debt. So whether it's purchase power contracts or traditional debt, it would have the same effect on financial risk.

CHAIRMAN CALIBOSO: So the companies that you've mention that you compare them to, you said that they were not subject to the same type of purchase power contract situation, did you imply that they were building them on their own so it wasn't -- so they did not build those with debt?

MR. MORIN: A lot of these companies are self-sufficient in terms of power, so they don't have to rely on as much purchase power as HECO does.

CHAIRMAN CALIBOSO: Right. But did they build the generating units, for example, with debt or with equity?

MR. MORIN: Well, a good example is that of power. You totally rely on purchase power contracts up to about two or three years ago; and, since then, they have become more self-sufficient and have built the plant, that was the subject of that footnote a few minutes ago, in order to become more self-sufficient, and they did issue debt and also equity infusions from the parent company.

So this Company and, I think, others, use a mix of debt and equity so as to maintain a certain debt ratio. It still has to maintain a bond rate.

CHAIRMAN CALIBOSO: So are you saying that their debt equity ratio is better than HECO's?

MR. MORIN: HECO's debt ratio, if you take into account the debt equivalence, it's much higher than average. It's something 56, 57 percent, which is huge; or, conversely, you can look at it the other way. The equity to ratio is 44 percent and the average for the industry is around 48.

CHAIRMAN CALIBOSO: So you're saying that the industry, even in situations where you've compared those companies, they've built their generating units more with equity, is that what you're saying?

MR. MORIN: A mixture of debt and equity so as to maintain a target debt equity ratio which, in turn, maintains their bond ratings.

CHAIRMAN CALIBOSO: So what would be the target that equity ratio that would equalize HECO with the rest of those companies even including imputed debt?

MR. MORIN: I think any utility, including HECO, should target a single A bond rating, because we have learned from the financial crisis that if you're less than single A, you're access to financing to capital markets is severely compromised.

Then the question becomes, What is the target debt ratio that is required to have a single A bond rating?

I would think something of the order of 50/50 as a long-term target to aim for and that way you're sheltered from all the shenanigans on financial markets and potential crisis in the future and you have access to capital and so forth.

CHAIRMAN CALIBOSO: So you're saying, at the most, 50 percent debt, including imputed debt?

MR. MORIN: Yes, correct.

CHAIRMAN CALIBOSO: And could you repeat again what you think HECO's debt ratio is now, including imputed debt?

MR. MORIN: Around 56 percent but Ms. Sekimura can answer that in much more detail, but I'm fairly sure it's around 56 percent.

CHAIRMAN CALIBOSO: Thank you.

Anything else?

I have a few other questions that, I think, might be kind of basic, so I apologize, just for me to understand.

I'm always leery when somebody says that.

(Laughter.)

CHAIRMAN CALIBOSO: If you could turn to page 20 of your testimony T-21 and you have --

MR. MORIN: Correct.

CHAIRMAN CALIBOSO: Correct, T-21.

MR. WILLIAMS: Mr. Chairman, that would be T-19.

CHAIRMAN CALIBOSO: I'm sorry, T-19.

MR. MORIN: I have it.

CHAIRMAN CALIBOSO: It's the basic CAP formula.

MR. MORIN: Yes.

CHAIRMAN CALIBOSO: And at the bottom of that page, starting on line 22, you have a formula there: EXPECTED RETURN = RISK-FREE RATE + RISK PREMIUM.

MR. MORIN: Yes, sir.

CHAIRMAN CALIBOSO: And the notational formula at the bottom of the page, could you read that for me too?

MR. MORIN: I'm on page 19 and on line 25. At the very bottom the algebraic equation reads as follows. K, and that's the cost of equity, equals R_F, which means the risk-free + Beta, which is a measure of relative risk, and the bracketed expressions $R_M - R_F$, is essentially the price of risk. It's a measure of society's risk aversion in general.

CHAIRMAN CALIBOSO: Okay. So it looks like under this estimate of rate of return or return in equity, you look at the risk-free rate and you take the difference between the market risk and risk-free rate times the beta and you add those two together and that's your --

MR. MORIN: That's it.

CHAIRMAN CALIBOSO: That's it. So you have risk-free R_F, as one component and then used risk-free again at the end of the formula. Correct?

MR. MORIN: Yes, sir.

CHAIRMAN CALIBOSO: Was that meant to be used in a way that those two values should be the same?

MR. MORIN: Yes, they both should be long-term Treasury bond yields; so, in my case, 30-year loans.

CHAIRMAN CALIBOSO: And is that what you did in this case?

MR. MORIN: The R_F is, as it refers to the yield on 30-year Treasury bonds, the bracketed expression was taken from a historical track record, stocks had outperformed long-term bonds by approximately 6.5 percent and that particular study refers mostly to 20-year bonds; so, there's a bit of an anomaly there. And, fortunately, I'll try not to use technical language here, but the yield curve is very flat beyond 10, 15 years, so there's not much difference between 20 years and 30 years bonds of time; but, you're correct, they have to be the same number.

CHAIRMAN CALIBOSO: So the R_F you used at the beginning, the first part of this formula, what value did you assign there?

MR. MORIN: 4.6 percent based on long-term Treasury bonds yields at the time of preparing this document.

CHAIRMAN CALIBOSO: And did you use the same value for the second time you used it?

MR. MORIN: In the second time, I looked at the bracket, as a whole, based on historical relationships between stocks and bonds. The Morning Star study -- it used to be Ibbetts & Associates Study -- compiles returns on stocks and on bonds from 1926 until today; and, the historical average difference between stocks and long-term Treasury bonds, if you'll read the testimony was at the time here was approximately 7 percent; but, this was done on 20-year Treasury bonds because 30-year bonds haven't been around the entire 100 years, you know.

CHAIRMAN CALIBOSO: So you --

MR. MORIN: So there is that --

CHAIRMAN CALIBOSO: So does that -- I'm sorry, go ahead.

MR. MORIN: I said there's that slight inconsistency there; but, again, fortunately, there's a difference between 20-year and 30-year bonds as miniscule.

MR. WILLIAMS: Mr. Chairman, is the question, Why do you use his historic numbers in the bracketed versus the current number in the first of that equation, was that the question?

CHAIRMAN CALIBOSO: That and the more basic question is like I asked you earlier was, Are these supposed to be the same value? And, if they're not, I was asking you to explain why they're not the same value.

MR. MORIN: Well, the answer is, yes, they have to be the same value. Were they? No. But, fortunately, the difference being 20-year and 30-year bonds is miniscule. But the question about the bracketed expression, we call that the market-risk premium. There's an entire cottage industry that's been built and financed around this whole idea of the market-risk premium, is it 6 percent, is it 5 percent, or is it 7 percent, I simply use history basically to get a handle on that number.

CHAIRMAN CALIBOSO: All right. Sorry, I might have a few more.

On page 24 of T-19; and, again, I'm just trying to understand what you did here starting on line 23. The second DCF analysis applied to the aggregate equity market using the S&P 500 Index, et cetera.

Can you explain what you did here?

MR. MORIN: Sure. If we go back to your earlier question, the equation that appeared on page 19, line 25, the CAPM end equation, you'll see the expression R_M, which stands for return on the overall market. One way to get that was to apply the DCF model to an equity aggregate to a stock market aggregate such as the S&P 500; and, the DCF analysis is simply the sum of the dividend yield plus the expected growth rate on an index as a whole.

So the idea here is to focus on the R_M directly and forward looking R_M. And then once we have that, we simply subtract the risk-free rate and we have an estimate of the prospective or forward looking (inaudible).

CHAIRMAN CALIBOSO: And you did this as sort of a ballpark or benchmark testing to the other part of your analysis?

MR. MORIN: Correct.

CHAIRMAN CALIBOSO: Okay.

MR. MORIN: I like to use both historical estimates and prospective estimates. I'm a little apprehensive these days about the prospective market-risk premium in light of the financial crisis; but, anyway I used 7.4 percent.

CHAIRMAN CALIBOSO: Okay. I just have a few questions here and there. When you talked about Empirical CPAM and you -- I'll give the reference, page 29 of T-19, low beta securities earn returns somewhat higher than the CAPM would predict and high beta of securities are less --

MR. MORIN: Correct.

CHAIRMAN CALIBOSO: -- than predicted.

So I think you're implying this but HECO is a low beta?

MR. MORIN: Yes, sir.

CHAIRMAN CALIBOSO: And, for the record, what does that mean?

MR. MORIN: Beta is simply a measure of relative risks. So, if the Company has a beta of .8, it means it's 80 percent is volatile as the market. If a company like Del Computer has a beta of 1.3, it means it's 1.3 times as volatile as the market; so, beta is a measure of relative volatility. Utilities, right now, as we speak today, around 70 percent, .7 would be the volatility.

So on this particular graph that you see on page 29, the steeper relationship there for return and risk is what the CAPM predicts, but the Empirical studies indicate that the curve -- the curve -- a straight line is a little flatter than predicted by the CAPM; and, I think the reason for that is because low beta assets are usually blue-chips, usually high-yield and dividend full, type stocks; whereas, my beta stocks are usually grown stocks, I-Tech stocks; and, from a tax point of view, you're better off with growth, rather than dividend income because you don't pay tax on capital gains until you realize the gain, all right?

So I think that's one of the reasons why we observed this flatter than predicted relationship between risk and return, and I call that Empirical CAPM.

CHAIRMAN CALIBOSO: And so a beta of 1.0 would be a one-to-one relationship with the market?

MR. MORIN: Yeah, if the DOW goes up 10, the stock goes up 10.

CHAIRMAN CALIBOSO: So the low beta is below 1.0, and, I think, you said that utilities are generally in the .7 range --

MR. MORIN: Right.

CHAIRMAN CALIBOSO: -- but HECO isn't -- you have in the HECO --

MR. MORIN: Well, HECO doesn't have a beta because it's the parent, a part of the parent company.

CHAIRMAN CALIBOSO: Right, but your estimate for beta is?

MR. MORIN: Well, right now, it's .7. It's about 70 percent as risky as the average to stock; so, if the DOW goes up 10 percent, the utilities go up 7 percent.

CHAIRMAN CALIBOSO: And you're --

MR. MORIN: That --

CHAIRMAN CALIBOSO: -- yeah, go ahead.

MR. MORIN: -- if the DOW drops 10 percent, the utility stocks will drop 7 percent. They're not as volatile as the market --

CHAIRMAN CALIBOSO: And you're saying --

MR. MORIN: Think of it as a measure of defensiveness.

CHAIRMAN CALIBOSO: You were saying earlier that HECO is a little bit more risky than other utilities.

MR. MORIN: Well, not if you approve all of these mechanisms that will make it less of a risk.

CHAIRMAN CALIBOSO: Before you get to that, you're a little more riskier than other utilities, that's what you said originally but --

MR. MORIN: I think I agree with that.

CHAIRMAN CALIBOSO: Okay. But do you have any -- have you reviewed or do you have any empirical evidence of that of the volatility of -- well, you tell me what would indicate to you a higher risk comparative for HECO?

MR. MORIN: Well, there's a huge amount of empirical evidence that small companies, everything else being constant, are riskier than larger companies and that makes a lot of intuitive sense.

In my book, the New Regulatory Finance, there's a whole chapter devoted to what we call the size of the capitalization effect, and it's very, very well proven that empirically that small stocks are riskier than large stocks; and, HECO would classify it as such, everything else remaining constant.

CHAIRMAN CALIBOSO: So your conclusion is based on, I guess, your conclusion that HECO, like all other small companies, have higher risk?

MR. MORIN: Correct.

CHAIRMAN CALIBOSO: But my question was, Do you have any empirical evidence that shows that HECO is actually of higher risk and what kind of evidence would that be?

MR. MORIN: Well, for example, the bond ratings are a little bit lower than the utility average and the negative outlook, which probably has nothing to do with size but due to all these uncertainties.

CHAIRMAN CALIBOSO: Yes, Dr. Morin, but that is somebody else's opinion of risk. Right?

In your opinion, what empirical evidence is fair that HECO is of higher risk?

MR. MORIN: All the empirical studies that have examined the size effect have all concluded that small companies, who are given beta, are riskier than small -- than large companies.

CHAIRMAN CALIBOSO: But does that mean you don't have any direct empirical evidence for HECO for that conclusion?

MR. MORIN: Well, HECO is a small cap stock and, therefore, it's riskier than large cap stocks.

CHAIRMAN CALIBOSO: Thank you. I think I understand your answer.

On page 40 of T-19 you reject historical growth rates. I'm sorry, this is part of the DCF estimate.

You reject historical growth rates and but in C -- my question is this, Don't historical growth rates represent some form of reality, it shouldn't have -- should it have some weight and future growth prospects?

So if you could explain why you rejected it and try to answer it in terms of that.

MR. MORIN: The two reasons why history is not a very good guide for the future, number one, analysts forecasts take into account history before they make their forecast; so, in a sense, historical growth rates are redundant because it's already embedded in the forecast, because, as you say, investors would take into account history.

The second reason is because historical growth rates have been distorted by all kinds of events that have really changed the industry because of the risk complexion and growth complexion, restructuring, for example, lower allowed rates of returns and deregulation, and so on and so forth, lots of mergers and acquisitions and companies today are not the same they were in three or four or five years ago because of mergers and acquisitions.

So for all of these reasons, history is a suspect guide for the future.

CHAIRMAN CALIBOSO: And maybe just one more general question.

If the Company increases its equity proportion and you would agree that equity, of course, cost more than debt --

MR. MORIN: Yes.

CHAIRMAN CALIBOSO: -- in order to handle this risk, it seems like, at a certain point, with the increasing overall cost of capital, while you're addressing the other problem, how do we go about figuring out what the optimum total is?

MR. MORIN: You have asked one of the most fundamental question in all of finance today.

As you increase debt relative to equity, it lowers the overall cost of capital for a while. Why? Because the debt cost a lot less and it's tax deductible; but, as you keep substituting debt equity more and more, yes, indeed, it lowers the cost of capital overall, but you reach a point where this is compensated by the increased risk based by the equity holder and you're always trying to find that knife-edge circumstance where the low cost tax advantage of debt are offset by the increased risk associated with that.

It seems that for the electric utility industry somewhere around 48, 49, 50 percent is that magic balance, if you wish, between risk and return.

CHAIRMAN CALIBOSO: You must have some Nobel-prize winning formula to figure it out for utilities. No?

MR. MORIN: Yes.

CHAIRMAN CALIBOSO: You do?

MR. MORIN: Yeah, Chapter 19 of my book New Regulatory Financing.

(Laughter.)

MR. MORIN: It's quite involved. But the optimal capital structure, a good way of putting it for, you know, nonexpert exerts and finances, the Company you should strive for whatever debt ratio produces a single A bond rating which, to me, I call that the optimal bond rating, because regardless of financial market conditions, a utility will inevitably have access to capital markets if it's single A, and the financial crisis surely demonstrated that last year, which utility companies had no access to capital; or, if so, it was very expensive.

So single A bond rating and then you ask yourself what debt ratio do I need to get single A bond and that's a better way, a more practical way, through which I've looked at.

CHAIRMAN CALIBOSO: All right. Thank you.

Mr. Kondo?

COMMISSIONER KONDO: Dr. Morin, I'm going to ask questions, but if you indulge me, I'm going to ask them at the end of hearing everybody else and trying to learn about the ROE issue and listening to the other experts; so, I don't want you to assume that I don't have questions, but I do.

MR. MORIN: I will stay in suspense, Mr. Commissioner.

CHAIRMAN CALIBOSO: We don't want that to happen.

(Laughter.)

CHAIRMAN CALIBOSO: Mr. Williams, any redirect?

MR. WILLIAMS: I do have a few redirect questions.

Thank you, Mr. Chairman.

REDIRECT EXAMINATION

BY MR. WILLIAMS:

Q. Dr. Morin, you were asked about the PEPCO case in conjunction with the 50 basis-point reduction the commission found for decoupling; that's one company, one case.

Do you have information regarding other cases and other companies?

A. Well, yes, there's a whole exhibit there in page 18 of Exhibit 7 that shows that the average difference of being allowed REO companies with decoupling and without decoupling is 10 basis points, the other studies have shown as much as 25 basis points.

Perhaps, the best way to answer that question or to respond to that issue is to look at natural gas distributors because all of them have decoupling and compare them to electric utilities. Natural gas and utilities have a beta of about .67 or so, electric is about 4.7; so, the difference in beta risk can be translated into a return difference of approximately something around 25, 30 basis points, so that's another way of looking at it.

And, you know, the PEPCO decision was issued sometime ago and we've had a lot of decoupling cases and experiences since then, and the effect of decoupling through a large extent is embedded in capital market data in the comparable group of companies that typically rely on there's a lot of decoupling mechanisms that are already reflected in the bond ratings and in the capital market data. So we shouldn't just sort.of. cherrypick one in a particular decision three years ago and conclude that the effect is 50 basis points; and, again, I reiterate the fact that PEPCO is a T&D wires-only utility and not encumbered with riskier power generation function.

Q. Dr. Morin, in DOD Hearing Exhibit 3, which was the RRA document you were asked about more recent returns, it looks like on page 5 that the last decision is the end of

August; is that correct?

A. Yeah, that's correct.

Q. Do you have any more recent information on allowed returns?

A. Well, the Oncor decision that's the last one, it's a PMD company. Yes, since in September, Minnesota issued an order for a northern state's power, dated 9/29/09 of 10.88. Louisiana issued an order on 10/14/09 which is October for CLECO and the return was 10.7.

So the point, the more general point, is that the allowed ROEs have been inching up towards the 10.6 and 10.7; particularly, for vertically and integrated utilities. So I feel very, very comfortable around 10.75 in light of those decisions.

Q. Dr. Morin, I don't know whether I really need to clear this up, but if you go back to T-19, page 19, and the CAPM formula.

A. Yes.

Q. And when the Chairman was asking you whether the value for R_F in the first component was the same value as the second one, you talked about the difference between 30-year bonds and 20-year bonds.

To us laypeople, same value may mean same number?

A. Yes, same number.

Q. But it wouldn't be the same number if one is a historic average number and the other one is a current number; is that correct?

A. That's correct.

Q. Can you explain why one is a current number and the other is a historic averaging number?

I think that's what the question was really asking.

A. Oh, okay. Well, the idea of using history is a measure of prospect of our anticipate or what we call exante in lingo finance, "forward looking" is the best word, and we use history as a guide; and, there's no sort of pattern in the historical risk premiums; so, we can use the average over long periods of time as a measure of the current or prospect of the estimate of the market for a stream, as long as there's no parents, and there isn't any.

MR. WILLIAMS: That's all the redirect, I have Mr. Chairman.

CHAIRMAN CALIBOSO: All right. Thank you.

We may recall all of you at the end.

MR. MORIN: Thank you very much.

CHAIRMAN CALIBOSO: Oh, I'm sorry.

MR. WILLIAMS: We may have recross if we have redirect.

CHAIRMAN CALIBOSO: Recross?

MR. ITOMURA: Consumer Advocate has no further questions, for Dr. Morin.

MR. MCCORMICK: The Department of Defense has no further questions.

CHAIRMAN CALIBOSO: All right.

Thank you, Dr. Morin.

MR. MORIN: Thank you, Mr. Chairman and Commissioners.

Mr. Williams, do you have another witness or two more witnesses?

Would it be helpful to take a break?

MR. WILLIAMS: Just take a short break.

CHAIRMAN CALIBOSO: Maybe five minutes.

MR. WILLIAMS: So they can move books and things, yes.

CHAIRMAN CALIBOSO: We're in recess.

(Whereupon, at 10:44 a.m., a recess was taken, and the proceedings resumed at 10:55 a.m., this same day.)

CHAIRMAN CALIBOSO: Good morning.

This hearing is reconvened.

Mr. Williams, your next witness.

MR. WILLIAMS: Thank you much, Mr. Chairman.

Our next witness is Ms. Sekimura.

DIRECT EXAMINATION

BY MR. WILLIAMS:

Q. Ms. Sekimura, let's repeat your name. I'm not going ask you identify yourself since you've testified at length in this proceeding.

A. This is Tayne Sekimura and I'm Senior Vice President and Chief Financial Officer at Hawaiian Electric Company.

Q. With respect to cost of capital you're sponsoring testimonies HECO T-20, HECO-RG-20, HECO ST-20 Hearing Exhibit 8 and related exhibits, work papers, and information responses; is that correct?

A. That's correct.

Q. What's the subject matter you'll be covering today?

A. I'll be addressing Hawaiian Electric's recommendation for fair and reasonable rate of return on rate base for test year 2009; and, I will also give a brief summary of the key provisions of the State RPS law and the State Energy policies that impact the Company's financial integrity.

Q. What is my Hawaiian Electric's recommendation for a fair rate of return on rate base?

A. Our recommendation is 8.95 percent and this is based on Dr. Morin's updated ROE recommendation of 10.75 percent, which assumes approval of the decoupling mechanism as proposed by the Company and the Consumer Advocate and approval of the Purchase Power Adjustment Clause and the Clean Energy and Infrastructure Surcharge.

Q. What would have been the Company's recent achieved rates of return on rate base on common equity as calculated for ratemaking purposes?

A. Okay. The Company's actual rates of return on rate base, on a ratemaking basis, for the year ended 2008 and the 12 months ended June 30th, 2009, were 7.05 percent and 5.61 percent, respectively, below the allowed return of 8.66 percent.

The rate of return on rate base for the 12 months ended September 30th was 5.36 percent. The Company's actual return on common equity on a ratemaking basis for the year end 2008 and the 12 months ended June 30th, 2009, were 8.07 percent and 6.4 percent respectively, well below the allowed return of 10.7 percent. Our return on common equity for the 12 months ended September 30th was 6.52 percent.

Q. Ms. Sekimura, I know you have previously testified on the reasons why the achieved returns are so much lower than the authorized return, and I will not ask you to repeat that.

But can you briefly state what can be done to provide Hawaiian Electric with a more realistic opportunity to earn a fair return?

A. Cost recovery needs to be aligned with cost incurred; and, since traditional rate cases in any jurisdiction rarely can match up cost of recovery with cost increases, new mechanisms, such as those identified in the decoupling docket, should be implemented to work towards that goal.

Q. So addressing the new proposed mechanisms, the cost of capital witnesses for the other parties have taken the position that the incentive mechanisms in the energy agreement, including decoupling the Purchase Power Adjustment Clause and the Clean Energy Infrastructure Surcharge, all lower the Company's operating risks and, therefore, it's required rate of return on common equity, what is Hawaiian Electric's position?

A. I would agree that the incentive mechanisms being proposed taking in isolation would mean a lower level of investment risk. However, the incentive mechanisms are being proposed in the context of the total commitments and requirements set forth in the energy agreement.

The 40 percent RPS passed into law as Act 155 will require us to substantially increase the level of renewables on our system. This new State law increase the RPS requirement to 25 percent by 2020; 40 percent, by 2030; and, beginning in 2015, 100 percent of the RPS requirement must be met entirely by renewable generation resources.

At the end of 2008, our RPS was 18 percent of which about 9 percent was related to renewable generation sources and 9 percent from energy efficiency.

Q. Just, for the record, is that a consolidated figure or is that a HECO-specific figure?

A. This is a consolidated figure.

Q. Okay. Can you continue?

A. As a result of the increase RPS we will need to acquire thousands of gigawatt hours of electricity generated by wind, solar, and other renewable resources to meet our RPS requirement. We will need to increase our renewable generation by over 2.5 times the present level in order to meet the 25 percent RPS requirement by 2020.

Dependence on third-party suppliers, the renewable purchase energy increases our business risks because of the uncertainty regarding the impact of intermittent power on providing reliable service if appropriate supporting infrastructure is not installed or does not operate effectively.

Substantial infrastructure investments will be required to support the integration of renewables into our system. The Company's current five-year capital expenditure budgets are already significant at 1.6 billion and this is a consolidated number. It reflects the increase in replacements expected due to our aging infrastructure.

We will need to go out into the capital markets to raise funds to pay for these investments, and this impacts the Company's financial position and liquidity and therefor our financial risks.

Additionally, much of the renewables will be provided by third-party suppliers via purchase power agreements and any risk assessment should consider the balance sheet impact of the substantial additional renewables undertaken by the Company in the form of additional -- in the form of additional Purchase Power Agreements.

The additional Purchase Power Agreements will increase the amount of imputed debt calculated by our rating agencies requiring the Company to balance its capital structure.

Hawaiian Electric already has substantial imputed debt with the imputed for three of our existing Purchase Power Agreements amounting to 430 million.

And S&P described in its publication, dated November 26, 2008, that the consolidated financial profile of the Company as aggressive reflecting, in part, the very heavy debt imputation for its long-term Purchase Power Agreements.

Q. What were the proposed new cost recovery mechanisms intended to accomplish?

A. The mechanisms were intended, in part, to help the Company maintain its financial integrity by maintaining its existing credit rating and investment risk profile. It was also intended to help the Company to recover its cost of infrastructure projects necessary to support significantly increased levels of renewable energy reinvestments in a more timely manner.

The Company recognizes the importance of furthering the development of renewables not only to achieve the requirement under the RSP law but to also further our State's goal of energy independence; at the same time, we must continue to provide reliable service to our customers and maintain our financial integrity.

Q. Could you summarize S&P's comments regarding the recovery mechanisms?

A. In an article entitled recovery mechanisms help smooth electric utility cash flow and support credit ratings, dated March 9th, 2009, S&P noted that innovative ratemaking techniques and alternatives to traditional base rate case applications and large rate hikes will become more critical to the Utility's ability to maintain cash flow, earnings power and, ultimately, credit quality.

They noted that rate recovery mechanisms that allow for timely adjustment of rates outside of a fully litigated rate proceeding as beneficial to the Utility's creditworthiness.

Q. What are the Company's current credit ratings?

A. The Company has corporate credit ratings of BBB negative outlook by S&P and BWA1 negative outlook by Moody's.

Q. And what is your assessment of the ratings?

A. The BBB rating by S&P, especially concerning that, is it just one notch above the minimum investment rate credit rating. This is coupled with the negative outlook which is an indication that our ratings may be lowered.

Q. So is this -- keep going.

A. The Company's credit rating is relatively low given the significant challenges ahead. Hawaiian Electric must work to improve its credits rating in order to ensure access to the financial markets at a reasonable cost necessary to maintain existing service and to invest in infrastructure necessary to integrate more renewable energy into our system and be able to attract renewable developers who's financing is largely dependent on our creditworthiness.

Q. Does that conclude your summary?

A. Yes, it does.

MR. WILLIAMS: Mr. Chairman, the witness is available for questions.

CHAIRMAN CALIBOSO: Thank you.

Mr. Itomura?

CROSS-EXAMINATION

BY MR. ITOMURA:

Q. Good Morning, Ms. Sekimura.

A. Good morning.

Q. I have a few questions. I'm going to refer to HECO RT-20, your rebuttal testimony.

A. Yes.

Q. You provided an update to the estimated interest rate for incremental, long-term debt; is that true?

A. That's correct.
Q. Okay. If you could please refer to HECO R-2003.
A. Okay.
Q. You notice in the first column under long-term debt down at the bottom of that series of titles, New Series 2009, 7 percent rate is showing the calculation of embedded cost of long-term debt. Correct?
A. That's correct.
Q. When was your rebuttal testimony prepared?
A. Rebuttal testimony was prepared in the May timeframe, I believe.
Q. Has this incremental, long-term debt been issued yet?
A. Yes, it has.
Q. And what was the actual cost rate for that?
A. The actual cost rate was 6.5 percent.
Q. Okay. Is it true that at the yield on the BBB rated utility bonds have declined since that time?
A. The markets are still volatile but it has declined somewhat.
Q. And have you investigated a more current estimate of the incremental, long-term debt?
A. I have not.
Q. And in HECO's Hearing Exhibit 8, this is the last page of the hearing exhibits entered into the record this

morning.

A. Okay.

Q. On the second line long-term debt, as you go across it referenced to HECO R-2003 under the column Earnings Requirement, it reflects 5.81 percent. Correct?

A. That's correct.

Q. Therefore, the Hearing Exhibit 8 doesn't reflect the 6.5 percent change. Correct?

A. That's correct.

Q. Also consistent with the changes I'd like to refer back to HECO R-2003 in the Net Proceeds.

Can you compare that amount to the amount shown in the final term sheet of Attachment 4. It's CA-RIR-35 -- I'm sorry -- yes, CA-RIR-35, Attachment 4.

A. I have that.

Q. If you could, for the record, comment on the different amounts shown in both exhibits.

A. The final term sheet on CA-RIR-35 includes 150 million for the sale of revenue bonds. This is a consolidated number that consists of 90 million for Hawaiian Electric Company, HECO, and 60 million issued on behalf Hawaiian Electric Light Company. Those amounts -- the amount noted for Hawaiian Electric Company of 90 million does differ from the amount of proceeds noted on HECO R-2003 and the reason why it's different is because the Exhibit HECO R-2003 is calculating using the average, 90 million divided by two is 45 million.

Q. Okay. Thank you.

Considering the changes you just noted, what is the true cost of debt?

A. The true cost of debt would be lowered by this increment that was issued in July of 2009.

Q. Is there any chance you made those calculations?

A. I have not made those calculations.

MR. ITOMURA: All right. At this time we have no further questions.

COMMISSIONER KONDO: For the record, could just describe what you just referred to when you said it would be lower than this cost of debt, could you describe what you were looking at and what you referred to so the record will clearer.

MS. SEKIMURA: Excuse me. The cost of debt noted on HECO R-2003 effective rate of 5.81 percent, all else being equal, would be lower utilizing the interest rate for the new series 2009 of 6.5 percent as compared to the 7 percent shown.

COMMISSIONER KONDO: Thank you.

CHAIRMAN CALIBOSO: Mr. McCormick?

MR. MCCORMICK: No questions.

CHAIRMAN CALIBOSO: Questions?

All right. Thank you.

Any redirect, Mr. Williams?

MR. WILLIAMS: Yes, just one short question.

REDIRECT EXAMINATION.

BY MR. WILLIAMS:

Q. If we go to HECO R-2003, do you have that?

A. Yes, I do.

Q. The new series that a 45-million net proceeds on an average basis represents about 8 percent or less of the total debt; is that correct?

A. Approximately, yes, that's correct.

Q. And so what you would do to update that, if you were to update this without updating other components of that cost of capital a weighing calculation would be simply to substitute in the 6.50 or the 7.00 in this calculation; is that correct?

A. That's correct.

Q. But that, in of itself, would not take into account any other changes in the amounts of equity or short-term debt or other components; is that correct?

A. That is correct.

MR. WILLIAMS: That's all the redirect, Mr. Chairman.

CHAIRMAN CALIBOSO: Thank you.

Any recross?

MR. MCCORMICK: No, recross from the DOD.

MR. ITOMURA: No, recross from the Consumer Advocate.

CHAIRMAN CALIBOSO: Thank you.

Thank you, Ms. Sekimura.

Are we ready for your next witness, Mr. Williams?

MR. WILLIAMS: Yes, Mr. Chairman.

Our next witness is Mr. Steven Fetter.

CHAIRMAN CALIBOSO: Welcome, Mr. Fetter.

Go ahead, Mr. Williams.

MR. WILLIAMS: Thank you, Mr. Chairman.

DIRECT EXAMINATION

BY MR. ITOMURA:

Q. Mr. Fetter, could you state your name?

A. Steven Fetter.

Q. And in this proceeding you are sponsoring HECO-T-21, HECO RT-21, HECO ST-21, and related exhibits and information responses; is that correct?

A. Yes.

Q. Could you briefly summarize your background with respect to your current and prior positions?

A. I currently am President of my Energy Advisory Firm called Regulation UnFettered. I started that firm in 2002. My primary clientele has been regulated utility companies and municipal utility companies, but I have also been retained during the seven years by public service commissions and

Consumer Advocates to work with them on certain cases.

Prior to starting my own firm, I was head of the utility rating credit rating practices at fixed ratings, which is one of the three major rating agencies on Wall Street along with Standard & Poor's and Moody's.

Prior to that for six -- a little over six years, I was chairman and commissioner at the Michigan Public Service Commission. In July of 1993, I was reappointed to be Chairman and then left about five months later to go to Fixed Ratings.

Q. Could you summarize the purpose of your testimony in this proceeding?

A. In my three filings of testimony in this proceedings, I discussed my opinion that a constructive resolution by the Commission in this rate case will be important for Hawaiian Electric Company to be able to maintain its current BBB EAA1 credit ratings with a longer term view of improving those ratings into the A category. I view the A category as the appropriate level for a regulated utility under current economic circumstances.

This Commission's decision will come amidst a period of economic turmoil within the U.S. financial sector and capital markets. The financial crisis highlights that for a utility like Hawaiian Electric, which has a need for substantial financing due to its projected capital program, it is paramount that its financial integrity be sustainable through its entire capital investment cycle.

Q. And Ms. Sekimura has testified regarding the benefits of the decision of this Commission that might be perceived by the financial markets as being positive.

Looking at the flip side of that, what are the potential downsize of a decision that might be perceived as negative by the financial markets?

A. If there were to be a less supportive decision in this case that would be viewed by the financial community is negative, it could weaken the Company's credit profile at a time that the Company holds negative rating outlooks for both Standard & Poors' and Moody's. Such a decision coupled with the two negative rating indicators could result in downgrades and a downgrade is an action that would increase the Company's cost of financing, not only for its large capital program, but also for the funds that the Company uses on a day-to-day basis to operate its utility.

I know that when S&P assigned the negative outlook to Hawaiian Electric in May of this year at that time it did downgrade the Company's short-derm credit rating and that impinges upon the Company's short-term financing options.

Q. What is your view of the Company's current rating in the BBB category?

A. As explained in my rebuttal testimony, the economic stress of last fall and earlier this year resulted in extreme spreads and financing costs between A and BBB rating companies. While the situation has improved, those spreads have not yet returned to their pre-economic crisis levels.

What occurred back then as an affirmation to both utility managements and their regulators that a stronger credit profile accrues to the benefit of both the utility and its customers. The stronger the utility's credit profile, the easier it is to access the capital markets and the more reasonable the interest rates that the Company has to pay.

This is also true for all of the third-party developers of renewable projects that will be very busy over the foreseeable future, because they will be financing their projects off of the credit rating of the Company Hawaiian Electric. The lower financing costs for both Hawaiian Electric and those renewable developers in turn or shared with customers through the ratemaking process.

Q. We are currently in a recession and Hawaii has been very hard hit by this recession.

Does this difficult situation faced by Hawaiian Electric's customers enter into your views in this case?

A. Yes, it does. I know that the residents of Hawaii are currently experience a serious economic downturn at the same time that Hawaiian Electric is facing its own financial challenges.

The best decision here would be one that allows the

Company to receive timely recovery of its prudent expenditures, including those spent on appropriate planning activities so as to be able to maintain its current financial profile. Both customers and investors suffer when a downgrade occurs and; conversely, on the upside, an improving trend in the Company's credit profile ultimately results in lower costs and lower rates.

Q. How would you sum up the circumstances faced by the Company?

A. In view of the extreme stress that has characterized the utility sector during the past year, my advice to utility companies, their investors, and their regulators alike, is that nothing should be taken for granted within the current economic climate. I believe that the result of this case will represent an historical step by this Commission, the Company, and its stakeholders for expansion of renewable energy resources and energy conservation in a way from the extreme volatility that accompanies a significant reliance on fuel oil for generation.

But such major policy steps, including a renewable portfolio standard of 15 percent by 2015, 25 percent by 2020, and 40 percent by 2030, all to be achieved without counting energy efficiencies also bring new risks that the Company has never faced before.

The proposed revenue decoupling mechanism, the concept that is growing across the United States will help, in part, to preserve Hawaiian's Electric's financial viability while encouraging progress related to conservation. Timely recovery of prudent expenditures and an authorized return on equity consistent with current market conditions, as explained by Professor Morin, are crucial policy steps as well.

I encourage adoption of the innovative solutions proposed within this case, along with the appropriate steps to ensure the Company's financial health going forward.

Q. Mr. Fetter does that conclude your summary?

A. Yes, it does.

MR. WILLIAMS: Mr. Chairman, the witness is available for questions.

CHAIRMAN CALIBOSO: Thank you.

Mr. Itomura?

MR. ITOMURA: The Consumer Advocate has no questions for Mr. Fetter.

MR. MCCORMICK: The Department of Defense has no questions.

CHAIRMAN CALIBOSO: Thank you very much.

Mr. Fetter, I don't think we have any questions. Again, we may have a question for you tomorrow or when we reconvene.

MR. FETTER: Okay, thank you.

CHAIRMAN CALIBOSO: Okay.

That's all your witnesses correct, Mr. Williams?

MR. WILLIAMS: That is correct, Mr. Chairman.

CHAIRMAN CALIBOSO: Mr. Itomura, are you ready or do you need a break?

MR. WILLIAMS: May I just take a second and grab my book?

CHAIRMAN CALIBOSO: Sure.

MR. WILLIAMS: Thank you, Mr. Chairman.

CHAIRMAN CALIBOSO: Go ahead, Mr. Itomura.

MR. ITOMURA: Good morning, Chairman Caliboso Commissioner Cole and Commissioner Kondo.

DIRECT EXAMINATION

BY MR. ITOMURA:

Q. For the Consumer Advocate's witness if you could, please, state your full name for the record?

A. Certainly. My name is David C. Parcell, P-A-R-C-E-L-L.

Q. Thank you.

Is it true that you're sponsoring CAT-4, CAST-R related exhibits and most recently CA Hearing Exhibit 3?

A. That is correct.

Q. If you could, could you provide a brief background of your experience and specifically with this Commission of the State of Hawaii of PUC?

A. Certainly. I've been doing cost of capital testimony for almost four decades. We go back to 1972 and testified in a few hundred cases, about half on behalf of Commission staffs and half on behalf of Consumer Advocates/Attorney Generals and; occasionally, I'll do it on behalf an industrial or other (inaudible).

I have testified in Hawaii a dozen or so times, including the three components of the HECO system: HECO, MECO and HELCO.

That's a brief summary of my history so I'll stop at that.

Q. Thank you.

At this time could you provide us a summary of your testimony?

A. Certainly. I'm testifying as to total cost of capital for HECO relative to its 2009 test year. I'm using the same capital structure and cost rates as proposed by HECO, although I'll note that the cost of debt may be a tick lower than the rate in the revised filing, but that could be sorted out later.

My recommendation differs mostly from HECO in two respects. First, I'm recommending a cost of common equity range of 9.5 percent to 10.5 percent. That range is based upon my analyses using three methods: DCF or Discounted Cash Flow; CAPM or Capital Asset Pricing Model; and, CEM.

In my direct testimony my DCF results were a range of 9.5 and 10.5 -- I'm sorry, 10.0 to 11.0 and my CAPM was 7.5 percent and my capital earnings range was 9.5 or 10.5. Based upon this, I recommended an overall cost of capital range of 9.5 to 10.5. I've updated my analyses twice since then; once, in August and once just last week, the week before last.

My range is still the same, which is 9.5 to 10.5, although the components have changed. My DCF today would be more in the range of 9.5 to 10 as opposed to 10 to 11, but my capping has come up some; but, my range remains 9.5 to 10.5 percent. The second difference I have of HECO is the proper adjustment for the decoupling and other mechanisms.

I'm proposing that if all of the proposed adjustments, including the continuation of the ones that HECO currently has are continued, that this Company's cost of equity should be at or near the bottom of the range of reasonableness for comparable companies because, first, no other companies have the same degree of decoupling mechanisms that HECO does; and, since I have a range of a hundred basis points and a midpoint of -- in the middle, the bottom part is 50 basis points.

And the reason I'm recommending that adjustment, these decoupling of other adjustments are part of a comprehensive package that this Company is undertaking, it's not adjustments, it's other factors as well; and, in fact, it's somewhat unique in that the Consumer Advocate is on board of these. They are joint in proposing things. But we need to realize that what these adjustments are doing, they're shifting the risks from HECO's ratepayers -- to HECO's ratepayers from the shareholders.

Now the Consumer Advocate and the Company has some latitude in making a decision but the ratepayers don't. So if you have a mandatory shift of risks to the ratepayers, they should be compensated for it, and the compensation should be in the form of a lower term equity.

And I'm proposing that it be toward the lower end of the range of reasonables. And HECO is proposing 25 basis points; so, we're basically 25 basic points apart; and, that completes my summary.

Q. Thank you, Mr. Purcell.

MR. ITOMURA: The Consumer Advocate will allow questions for Mr. Parcell at this time.

CHAIRMAN CALIBOSO: Thank you.

Mr. Williams?

MR. WILLIAMS: Thank you Mr. Chairman.

CROSS-EXAMINATION

BY MR. ITOMURA:

Q. Good morning, Mr. Parcell.

A. Good morning, sir. Good to see you again.

Q. I thought we weren't trying to present testimony that indicated how old we both are.

(Laughter.)

A. I would prefer not to, but we don't -- I don't hide it very well. You do.

(Laughter.)

Q. You've been doing this since '72, and I think I've been doing this since 1994; so, we've been at it a while.

A. Yes, we have. We're all warriors, experienced warriors, not all.

(Laughter.)

Q. Now we've learned from that experience.

A. We hope so.

Q. Let me ask you a few questions then. If you go to page 19 of CAT-4.

A. Sure. Nineteen you said.

Q. Let me know when you're there.

A. I am there.

Q. And so at the bottom of page 19 you list the current security ratings of HECO; is that correct?

A. That is correct.

Q. And then on the next page I think on line 5 you indicate in 2008 S&P reduced MECO's readings; is that correct?

A. Well, that's true, but it should say HECO though.

Q. Okay.

A. They were both reduced, but it should say HECO.

Q. No, my understanding is that the actual downgrade occurred in May of 2007.

Do you have a different understanding?

A. I'll accept that. In fact, I think I've seen that stated in some of the rebuttal testimonies, so I'll certainly accept that.

Q. In the S&P's research updated in May 2009, it revised HECO's outlook to negative from stable; did it not?

A. Yes, I have seen that, yes.

Q. And did it also note that the Company's credit metrics are only marginally supportive of the current BBB credit rating?

A. Yes, it did; and, of course, the reason for that, as stated by Standard & Poor's; or, the primary reason was the dramatic decline in the Hawaiian economy and the resulting loss of sales, two factors that, over a longer term, decoupling will help prevent; but, in the short term, it's not because HECO is not here yet.

Q. Which is a good point. We don't have a decoupling mechanism yet; is that correct?

A. Right. We can't turn back the clock. We can change the future.

Q. And, in fact, we don't have a clean energy infrastructure surcharge provision yet either; is that correct?

A. That's my understanding, yes.

Q. Let me ask you to turn to page -- the bottom of page 23.

A. Twenty-three. Yes, I have that.

Q. Now on the next page you list the credit ratings for 60 electric utilities in combination gas and electric utilities; is that correct?

A. Yes, it is.

Q. And you note that the comparison indicates that HECO's ratings are in the most common rating category of electric utilities?

A. Yes.

Q. What did you mean by that?

What do you mean by rating a category?

A. Well, if you look at BA1, for example, in Moody's, there are three categories below and four above; so, it's toward the middle. It's not the bottom, it's not the top, it's in the middle.

Q. If I look at the S&P account, 38 higher 11, the same and 11 lower.

Do you get a different result?

A. No, I wouldn't.

Q. And in addition to that we've already established that HECO is on a negative outlook, is that correct, for a further downgrade?

A. Yes, we -- well, we did agree that they were a negative outlook, yes, it just changed from stable.

Q. You've heard testimony regarding the amount of new capital or new bonds that need to be issued to help finance the Company's capital program; is that correct?

A. That's correct. And, fortunately, HECO has access to the State's revenue bonds which is a big advantage to this Company that most companies don't have.

Q. When they issue those revenue bonds therefor long periods of time; is that correct?

A. Yes.

Q. And so the rates --

A. Usually a guess.

Q. -- that are established, the interest rates that are acquired through those issuances will be in place for a long period of time?

A. That's correct, and in rates as well.

Q. All right. If they were to issue bonds for 20 years and were to finance half their capital program on the order of 700 or 800 million, have you calculated what the impact of a downgrade would be on that cost, the repairs over that period of time?

A. No. It theoretically could be done. You would have to estimate the impact of a notch and a notch is not a downgrade from say to A to B, it would be the BB, a notch would be from like BA1 to BA2 and there are statistics on that, but you would anticipate there would be some impact, yes.

Q. Well, there's another place in your testimony where, you fact, estimated that difference, didn't you?

A. No, that was between a full rating.

Q. Okay.

A. And my answer to you was a notch within a rating, like, for example, BA1 to BA2, and I asked if it's single A and BBB, which its average is three notches full rate of change.

Q. It's your understanding that much of the additional renewable energy that we need to acquire to meet the RPS standard will be acquired through our purchase agreements; is that correct?

A. That's my understanding, yes.

Q. And those Power Purchase Agreements are also long-term agreements?

A. That's my understanding as well.

Q. Would you agree that the developers of those projects generally finance their projects based on the credit rating of the off-taker which, in this case, would be Hawaiian Electric Company?

A. That's often the case. I don't know if it will fact here, but I'll accept that. It's often the case with these contracts.

Q. The impact of a downgrade on Hawaiian Electric would also impact the cost of capital for those purchase power projects; is that correct?

A. On an ongoing basis, it could, yes; again, within a notch.

Q. And those entities would also seek to pass on that class when they entered into Power Purchase Agreements with the utility. They need to recover their costs; is that correct?

A. If they would desire to, yes.

Q. Whether we negotiate those contracts or bid those contracts, they're going to attempt to cover their cost of providing the power through the -- and which is primarily the cost of building the facilities; isn't that correct?

A. If they're astute business people, they will, yes.

Q. Has the Consumer Advocate indicated to you that any of the entities we're dealing with are not astute?

(Laughter.)

A. I haven't asked that question. I would hope they'd at least astute enough to build these plants and operate them.

Q. To the extent they are able to pass on those costs to the Power Purchase Agreement, those costs then get passed on to ratepayers?

A. That's correct.

Q. Let me ask you to turn to pages 65 and to 66.
A. Sixty and 66. Yes, I'm there.
Q. I believe this is where you discussed the Commission's prior adjustments to increase -- to recognize a higher cost of equity for the Hawaiian Electric Utilities; is that correct?
A. That is correct.
Q. And, at some point, you indicated your view that the impetus for the adjustment in the ROE from the period around 1994 to 2001 was downgrades; is that correct?
A. That's my review of these orders. I have a big notebook back in my office of the cost of capital portion of these orders which I've researched to developed this table.
Q. So, unfortunately, the process of downgrading has not stopped, isn't that correct, we had a further downgrade in 2007?
A. That's correct on one notch, yes.
Q. And right now we're on negative outlook?
A. Yes. Again, because of the Hawaii economy with the decupling around the corner, so it seems, to me, we need to get a rate order in the next six months, things will look a little better and hopefully the economy is well, but the economy is the big kicker right here.
In both Moody's and Standard & Poor's stated that and that's not HECO's fault, it's not HECO's customers' fault.

I mean, it's not pretty for anyone.

Q. When you say decoupling is around the corner, do you know more than I know?

A. Implementation. My client is in favor, if you're in favor, we hope it will prevail.

Q. Thank you for that.

In recognizing this need to adjust the cost of equity derived from the market for other companies, in applying it to the Hawaiian Electric Companies, what were the factors that the Commission recognized before?

A. Well, I think I have it in my testimony as a matter of fact. It was -- there was regulatory lag involved, but that's my term, not theirs.

Q. They recognize the smaller size of --

A. That was the factor and the remoteness.

Q. Did they recognize a substantial purchase power -- power purchase obligations?

A. Well, that -- I don't recall it specifically listed as a factor. I think the growth was a factor and the growth would include that.

Q. You don't think they explicitly recognized substantial purchase power obligations, for example, in the 2001 HELCO decision?

A. They may have been, but, again, growth is a factor, whether it comes from plant additions or purchase power; so, it should be recognized either way as a respect to the extent it exists.

Q. Did the Commission also state at that time that the Company's bond ratings were a matter of concern?

A. If I recall correctly, yes.

Q. And since that time the bond ratings have actually gotten lower; is that correct?

A. Well, in one case, yes, one notch.

Q. How much further can they go and still be investment grade?

Isn't only one notch?

A. No. In case of Standard & Poor's, it's just one notch; in the case of Moody's, it's two. And, bear in mind, it's not uncommon for companies to have so much split ratings. Standard & Poor's takes a consolidated approach to its ratings.

When they rate a Company, it's a part of a holding company. They look to the entire entity more so than Moody's. Moody's is more interested in the entity per se; and, of course, it takes a Standard & Poor's for (inaudible) one aspect is a savings bank; of course, banks, in general, have had a hard time this year; and, that's -- I haven't seen the specific state of it. That's likely a factor in the consolidated profile of (inaudible); so, that would be one reason that would distinguish Moody's from Standard & Poor's, but Moody's would have two notches and it would still be an investment rate and Standard & Poors' will only have one as you've implied or indicated.

Q. On page 66 beginning on lines 18, you make the statement that the circumstances that HECO presently encounters both from the regulatory and financial standpoints are much improved?

A. Yes.

Q. And yet the empirical evidence is that the utilities bond rating has actually declined; is that correct?

A. Well, but you have two factors here. The micro aspect is the information for HECO. In here, you've got a situation where this Commission is one of eight or nine in the country that has an above-average rating by (inaudible) for example. HECO has had since, I think, GO7 was, I believe, in 2001, a number of tracking mechanisms that helped, that those were new since the 1990s.

You have a joint proposal by HECO and the Consumer Advocate for complete decoupling and that's a positive factor. The macro approach is that utilities, in general, have had declines. The typical bond rating for a electric utility in the 1990s and eighties was A and that's a BBB, and the whole industry has moved, as the standard changed by agencies, which they've changed several times.

So that's a macro factor. So when you say the empirical evidence, that's the big picture, but the factors that I'm referring to here are actually better than ratemaking cases. In fact, that should be evident from your own conclusions. You guys were asking for over a hundred basis points adjustment in the nineties and now you're asking for 25 or actually zero now; so, even HECO recognizes that the differential has gone down over the past 15 or 20 years.

Q. The differential between HECO and the other utilities does not mean -- even if that has improved, does not mean that HECO's overall circumstances has improved, does it?

A. Yes, it does, because if you ask for 115 basis points or more in the early 1990s and you're asking for 25 for pre-decoupling today, that's -- HECO has reduced its request about a hundred basis points.

Q. If its bond rating has declined, you would still characterize that as an improvement?

A. All I'm saying is HECO has reduced its request for the risk adjustment by a hundred basis points over this period.

Q. Is a decline in the Company's bond rating an improvement in its financial status?

A. It's been improved but that's not what I'm saying here. I'm saying if there have been improvements by this Commission, by the Consumer Advocate, I mean, I'm going to put something out here, but I've testified in a lot of places, at the places that I've testified, at this point in time, as opposed to the 1990s, I think the relationship between HECO and the Consumer Advocate in this state is more of a semi-partnership than any other state that I'm aware of.

In many places it's a very adversarial process, you know, go for throats, we don't care about you guys, that's not true in this State. The Consumer Advocate in this State and your Company, I think, have done a lot to try and do things right, and that's what I'm trying to say here. I mean, you're jointly proposing the most massive decoupling program in the country, jointly proposing that. I don't think you can say that that's anything but positive.

Q. I think you refer to these mechanisms on pages 22 to 23 of your testimony; is that correct?

A. Yes, I think that's right. That is correct, 22 and 23.

Q. When I look at your testimony, I could find no reference to the renewable portfolio standard in Hawaii or any reference to the fact that concurrently with our proposal of these mechanisms that renewable portfolio standard requirements have increased by 250 percent by 2020 for example.

Why doesn't your testimony address both the challenges that we face as well as the mechanisms that we are jointly proposing with the Consumer Advocate to address those challenges?

A. I'm not opposed to that idea. In fact, if it worked for the mechanisms, the challenges probably would have never implemented, but what's happening you have new challenges but the mechanisms to help financial challenges apply not just to the challenges but to all of your revenues; so, the good part applies to everything the bad part applies to the new stuff.

So it's a net gain to HECO; and, in fact, your own recommendation to lower the cost of equity by 24 basis points indicates that she thinks so too.

Q. And yet there's not a discussion in your testimony about there being a net gain which implies that your testimony discusses the challenged side?

A. There are other HECO witnesses -- I mean CA witnesses that discussed that aspect. I'm not the rate exam witness. I'm the cost of capital guy.

Q. Yeah. And your cost of capital testimony talks about one factor, for example, revenue bonds, say we have revenue bonds and other companies don't --

A. Right.

Q. -- but we have an RPS requirement that's way more stringent than other jurisdictions, isn't that true?

A. I can't say for sure, but I'll accept that. But, again, you have mechanisms in place and mechanisms being requested, but not only solve that problem but would have positive implications for the rest of your revenues. That's a net gain in my view.

Q. Now one of the things we're going to have to do to meet those new RPS requirements is to acquire more Power Purchase Agreements, you would agree to that as well?

A. Yes, I would, mm-hmm.

Q. And that's going to result in more imputed debt on our books; is that correct?

A. Right. In the alternative, though, you would be building plants so that would require more real debt on your books.

Q. Either circumstance proposes challenges; is that correct?

A. I'm sorry? I'm sorry, sir?

Q. Either way --

A. Oh, either way.

Q. -- there are significant risks to the Company in trying to meet the higher RPS standard?

A. But, yes, but that's true for any Company that has growth. You have to --

Q. That's true for any Company that has a very high RPS standard?

A. Or any requirement for capital.

Q. Now when we add our own plant, we have both debt and equity; is that correct?

A. Normally, yes.

Q. So from the standpoint of bondholders, there's a equity return that cushions their exposure to their ability to pay that debt; is that correct?

A. That would be the indication, yes.

Q. When we have purchase power obligations, we have only the imputed debt unless we, in fact, add more equity to our capital structure; is that correct?

A. That's true, but you'd have a higher equity ratio that typically (inaudible) or it shows it took like a utility has about 45 percent equity ratio and you make 55; so, that -- I grant you that 55 does not include the purchase power, but you offset to set (inaudible) your higher equity ratio; and, I have another schedule, okay.

So CA-414 that shows the (inaudible) ratio with the imputed debt. It's roughly 42 percent. It's a little bit less but it's in the ballpark, but that is not -- when I say ballpark, the 45 percent of the typical electric utility, they would have some imputed debt, but I couldn't tell you how much nor could anyone else; but, the offset of the high equity ratio does give some cushion there too.

Q. Now looking at page 8 of your testimony down at bottom when you distress general principles of rates of return. I'll wait until you're there.

A. This is direct?
Q. This is --
A. Yeah, I have that.
Q. -- direct.
A. Okay.
Q. Okay. Now at the bottom of your -- at that page you refer to that opportunity cost principle.
A. Yes.
Q. Provides that a utility and its investor should be imported an opportunity, not a guarantee, to earn a return (inaudible) of others will similar risks.
A. Yes.
Q. Do you know what that Company's actual achieved return on equity for the 12 months end of June 30th were?
A. I just heard a number.
Q. I believe that number was 6.4 percent.
Does that sound familiar?
A. Well, she didn't refer back to the book. I think she referred to the regulatory return of equity and she didn't specify what that meant, but the number was 6.4. She may have references to a regulatory return on equity as opposed to book return and that was 6.4.
Q. And that's a return calculated for ratemaking purposes as reported in our monthly financial reports?
A. Okay. But, again, I don't know what to the extent

that differs from the book return. She didn't state that. I just wanted to distinguish between my answer because you, typically, look at book returns; and, if it's the same, it's the same. I just don't know because she didn't say.

Q. Book returns are actually slightly lower because of the difference between what expenses are allowed for ratemaking and expenses that are actually incurred.

Do you have a different understanding of it?

A. It could be both ways, book returns and regulatory returns. It depends under the circumstances how yours are done.

Q. Other utilities are actually coming much closer to their authorized returns on common equity, is that correct, for the most part?

We're at the bottom of the heap in terms of being able to actually achieve the authorized returns, is that a clear statement?

A. I wouldn't tell you, you were at the bottom of heap. I have a schedule that shows return of equity for holding companies, but that does not get into the returns for the utilities, per se. It's my general perception from it being a rate case is that many companies are not earning their authorized returns on equity. The question is the degree.

Q. And I agree that the question of degree are many of them are earning 400 basis points below their authorized returns?

A. I'm sure some have, but I don't have any statistics underneath my fingertips, because that information is not available from a typical source because it took the sources to focus on publicly traded companies and most utilities are holding companies.

Q. So 6.4 percent is not a good result if you're authorized return is 10.7 percent; is that correct?

A. That's correct. But if the decoupling comes, it would be a lot closer than I would anticipate. That's the whole purpose of it.

MR. WILLIAMS: Thank you, Mr. Chairman. That's all the questions I have.

MR. PARCELL: Thank you, sir. Good to see you again.

CHAIRMAN CALIBOSO: Thank you.

Mr. McCormick?

MR. MCCORMICK: The Department of Defense has no questions for this witness.

CHAIRMAN CALIBOSO: Questions?

Mr. Itomura, do you have any direct?

MR. ITOMURA: No, we have no redirect at this time.

CHAIRMAN CALIBOSO: The Commission doesn't have any questions at this time. We have a request to hold off on the Commission questions until tomorrow morning; so, you would have the afternoon off; and, then tomorrow we would do closing arguments right after that; and, I presume all the witnesses are available tomorrow as well, right?

MR. WILLIAMS: Yes, Mr. Chairman.

CHAIRMAN CALIBOSO: All right. If there's nothing else, we will recess and reconvene tomorrow morning at 9 a.m.

MR. WILLIAMS: Thank you, Mr. Chairman.

CHAIRMAN CALIBOSO: We are in recess.

(Whereupon, at 11:49 a.m., the hearing was adjourned and is to be resumed on Tuesday, November 3, 2009, at 9 a.m.)

C E R T I F I C A T E

This is to certify that the attached proceedings before the Public Utilities Commission of the State of Hawaii In the Matter of the Application of Hawaiian Electric Company, Inc. For Approval of Rate Increases and Revised Rate Schedules and Rules, at 465 South King Street, Honolulu, Hawai'i, commencing, on Monday, November 2, 2009, was held according to the record, and that this is the original, complete, and true and accurate transcript that has been compared to the reporting or recording, accomplished at the hearing, that the exhibit files have been checked for completeness and no exhibits received in evidence or in the rejected exhibit files are missing.

TRISTAN-JOSEPH, CSR NO. 469, RPR NO. 24906

DoD HEARING EXHIBIT 1

http://www.federalreserve.gov/releases/h15/data/Annual/H15...

,Instrument,"U.S. government securities/Treasury constant maturities/Nominal"
,Maturity,"20-year"
,Frequency,"Annual"
,Description,"Market yield on U.S. Treasury securities at 20-year constant maturity, quoted on investment basis"
,Note,"Yields on actively traded non-inflation-indexed issues adjusted to constant maturities. The 30-year Treasury constant maturity series w

DATE	TCMNOMY20
1993,	6.29
1994,	7.49
1995,	6.95
1996,	6.83
1997,	6.69
1998,	5.72
1999,	6.20
2000,	6.23
2001,	5.63
2002,	5.43
2003,	4.96
2004,	5.04
2005,	4.64
2006,	5.00
2007,	4.91
2008,	4.36

DATE	TCMNOMY20
1993,	6.29
1994,	7.49
1995,	6.95
1996,	6.83
1997,	6.69
1998,	5.72
1999,	6.20
2000,	6.23
2001,	5.63
2002,	5.43
2003,	4.96
2004,	5.04
2005,	4.64
2006,	5.00
2007,	4.91
2008,	4.36

Dod HEARING EXHIBIT 2

2. RRA

Average Equity Returns Authorized January 1990 - March 2009

		Electric Utilities		Gas Utilities	
Year	**Period**	**ROE %**	**(# Cases)**	**ROE %**	**(# Cases)**
1990	Full Year	12.70	(44)	12.67	(31)
1991	Full Year	12.55	(45)	12.46	(35)
1992	Full Year	12.09	(48)	12.01	(29)
1993	Full Year	11.41	(32)	11.35	(45)
1994	Full Year	11.34	(31)	11.35	(28)
1995	Full Year	11.55	(33)	11.43	(16)
1996	Full Year	11.39	(22)	11.19	(20)
1997	Full Year	11.40	(11)	11.29	(13)
1998	Full Year	11.66	(10)	11.51	(10)
1999	Full Year	10.77	(20)	10.66	(9)
2000	Full Year	11.43	(12)	11.39	(12)
2001	Full Year	11.09	(18)	10.95	(7)
	1st Quarter	10.87	(5)	10.67	(3)
	2nd Quarter	11.41	(6)	11.64	(4)
	3rd Quarter	11.06	(4)	11.50	(3)
	4th Quarter	11.20	(7)	10.78	(11)
2002	**Full Year**	**11.16**	(22)	**11.03**	(21)
	1st Quarter	11.47	(7)	11.38	(5)
	2nd Quarter	11.16	(4)	11.36	(4)
	3rd Quarter	9.95	(5)	10.61	(5)
	4th Quarter	11.09	(6)	10.84	(11)
2003	**Full Year**	**10.97**	(22)	**10.99**	(25)
	1st Quarter	11.00	(3)	11.10	(4)
	2nd Quarter	10.54	(6)	10.25	(2)
	3rd Quarter	10.33	(2)	10.37	(8)
	4th Quarter	10.91	(8)	10.66	(6)
2004	**Full Year**	**10.75**	(19)	**10.59**	(20)
	1st Quarter	10.51	(7)	10.65	(2)
	2nd Quarter	10.05	(7)	10.54	(5)
	3rd Quarter	10.84	(4)	10.47	(5)
	4th Quarter	10.75	(11)	10.40	(14)
2005	**Full Year**	**10.54**	(29)	**10.46**	(26)
	1st Quarter	10.38	(3)	10.63	(6)
	2nd Quarter	10.68	(6)	10.50	(2)
	3rd Quarter	10.06	(7)	10.45	(3)
	4th Quarter	10.39	(10)	10.14	(5)
2006	**Full Year**	**10.36**	(26)	**10.43**	(16)
	1st Quarter	10.27	(8)	10.44	(10)
	2nd Quarter	10.27	(11)	10.12	(4)
	3rd Quarter	10.02	(4)	10.03	(8)
	4th Quarter	10.56	(16)	10.27	(15)
2007	**Full Year**	**10.36**	(39)	**10.24**	(37)
	1st Quarter	10.45	(10)	10.38	(7)
	2nd Quarter	10.57	(8)	10.17	(3)
	3rd Quarter	10.47	(11)	10.49	(7)
	4th Quarter	10.33	(8)	10.34	(13)
2008	**Full Year**	**10.46**	(37)	**10.37**	(30)
2009	**1st Quarter**	**10.29**	(9)	**10.24**	(4)

EXHIBIT 2 DOD 11-2-09

PENGAD 800-631-6989

DOD Hearing Exhibit 3

ELECTRIC UTILITY DECISIONS

Order Date	Company (State)	ROR %	ROE %	Common Eq. as % Cap. Str.	Test Year & Rate Base	Amt. $ Mil.
1/14/09	Public Service Oklahoma (OK)	8.31	10.50	44.10	2/08-YE	59.3 (1)
1/21/09	Westar Energy (KS)	---	---	---	---	65.0 (B)
1/21/09	Kansas Gas & Electric (KS)	---	---	---	---	65.0 (B)
1/21/09	Cleveland Electric Illuminating (OH)	8.48	10.50 (E)	49.00	2/08-DC	29.2 (D)
1/21/09	Ohio Edison (OH)	8.48	10.50 (E)	49.00	2/08-DC	68.9 (D)
1/21/09	Toledo Edison (OH)	8.48	10.50 (E)	49.00	2/08-DC	38.5 (D)
1/30/09	Idaho Power (ID)	8.18	10.50	49.27	12/08-YE	27.0 (R)
2/4/09	United Illuminating (CT)	7.59	8.75	50.00	12/07-A	6.8 (D,R,2)
2/4/09	Interstate Power & Light (IA)	---	10.10 (3)	---	---	---
2/5/09	Kentucky Utilities (KY)	---	---	---	---	-8.9 (B)
2/5/09	Louisville Gas & Electric (KY)	---	---	---	---	-13.2 (B)
2/10/09	Union Electric (MO)	8.34	10.76	52.01	3/08-YE	161.7
3/4/09	Indiana Michigan Power (IN)	7.62	10.50	45.80 *	9/07-YE	19.1 (4)
3/11/09	Entergy Texas (TX)	---	---	---	3/07	30.5 (B,I,5)
3/17/09	Southern California Edison (CA)	---	---	---	12/09-A	308.1 (6)
2009	***1ST QUARTER: AVERAGES/TOTAL***	**8.19**	**10.29**	**48.52**		**857.0**
	MEDIAN	**8.33**	**10.50**	**49.00**		**---**
	OBSERVATIONS	**8**	**9**	**8**		**14**
4/2/09	Entergy New Orleans (LA)	---	11.10	---	12/08-YE	-24.7 (B,7)
4/16/09	PacifiCorp (ID)	---	---	---	---	4.4 (B)
4/21/09	PacifiCorp (UT)	8.36	10.61	51.00	12/09-A	45.0 (B)
4/24/09	Consolidated Edison of New York (NY)	7.79	10.00	48.00	3/10-A	523.4 (D)
4/30/09	Tampa Electric (FL)	8.29 (R)	11.25	47.49 *(R)	12/09-A	147.7 (Z,R)
5/4/09	Minnesota Power (MN)	8.45	10.74	54.79	6/09-A	21.1 (I)
5/20/09	Oklahoma Gas & Electric (AR)	6.43	10.25	36.04 *	12/07-YE	13.3 (B)
5/20/09	NorthWestern Corp. (MT)	8.38	10.25	50.00	---	--- (8)
5/20/09	PacifiCorp (WY)	---	---	---	---	18.0 (B)
5/28/09	Public Service New Mexico (NM)	8.77	10.50	50.47	3/08-YE	77.1 (B,Z)
5/29/09	Idaho Power (ID)	---	---	---	---	10.5 (9)
6/2/09	Southwestern Public Service (TX)	---	---	---	12/07	57.4 (B,I)
6/9/09	Public Service Co. of Colorado (CO)	---	---	---	---	112.2 (B)
6/10/09	Kansas City Power & Light (MO)	---	---	---	12/07-YE	95.0 (B)
6/10/09	KCP&L Greater Missouri Oper-L&P (MO)	---	---	---	12/07-YE	15.0 (B)
6/10/09	KCP&L Greater Missouri Oper-MPS (MO)	---	---	---	12/07-YE	48.0 (B)
6/22/09	Central Hudson Gas & Electric (NY)	7.28	10.00	47.00	6/10-A	39.6 (D)
6/24/09	Nevada Power (NV)	8.66 (10)	10.80 (10)	44.15	6/08-YE	222.7 (Z)
2009	***2ND QUARTER: AVERAGES/TOTAL***	**8.05**	**10.55**	**47.66**		**1,425.7**
	MEDIAN	**8.36**	**10.56**	**48.00**		**---**
	OBSERVATIONS	**9**	**10**	**9**		**17**

EXHIBIT 3 DOD 11-29-18
PENGAD 800-631-6989

ELECTRIC UTILITY DECISIONS (continued)

Order Date	Company (State)	ROR %	ROE %	Common Eq. as % Cap. Str.	Test Year & Rate Base	Amt. $ Mil.
7/8/09	Duke Energy Ohio (OH)	8.61	10.63 (E)	51.59 (E)	12/08-DC	55.3 (D,B)
7/14/09	Southwestern Public Service (NM)	---	---	---	---	14.2 (B)
7/17/09	Avista Corp. (ID)	8.55	10.50	50.00	9/08-A	12.5 (B)
7/24/09	Kansas City Power & Light (KS)	---	---	---	12/07-YE	59.0 (B)
7/24/09	Oklahoma Gas & Electric (OK)	---	---	---	9/08-YE	48.3 (B)
8/21/09	Texas-New Mexico Power (TX)	---	---	---	3/08	12.7 (B)
8/31/09	Oncor Electric Delivery (TX)	8.28	10.25	40.00	12/07-YE	115.1 (D)
2009	***3RD QUARTER: AVERAGES/TOTAL***	**8.48**	**10.46**	**47.20**		**317.1**
	MEDIAN	**8.55**	**10.50**	**50.00**		**---**
	OBSERVATIONS	**3**	**3**	**3**		**7**
2009	***YEAR-TO-DATE AVERAGES/TOTAL***	**8.17**	**10.43**	**47.94**		**2,599.8**
	MEDIAN	**8.35**	**10.50**	**49.00**		**---**
	OBSERVATIONS	**20**	**22**	**20**		**38**

FOOTNOTES

A- Average
B- Order followed stipulation or settlement by the parties. Decision particulars not necessarily precedent-setting or specifically adopted by the regulatory body.
D- Applies to electric delivery only
DC- Date certain
E- Estimated
I- Interim rates implemented prior to the issuance of final order, normally under bond and subject to refund.
R- Revised
YE- Year-end
Z- Rate change implemented in multiple steps.
* Capital structure includes cost-free items or tax credit balances at the overall rate of return.

(1) Recovery of an additional $22.1 million authorized through adjustment mechanisms.
(2) Second-year distribution rate increase of $19.4 million authorized based on a 7.76% ROR. This increase is subject to adjustment for pension expense.
(3) Adopted ROE applies only to the company's proposed 649-MW, coal-fired Sutherland Unit 4 plant. The company subsequently cancelled plans to construct the plant.
(4) Commission decision modified a settlement. Recovery of an additional $22.5 million authorized through tracking mechanisms.
(5) Indicated rate increase includes a $46.7 million base rate increase offset by a net $16.2 million decrease in revenues collected under certain riders.
(6) Indicated rate increase is retroactive to January 1, 2009 and reflects the one-time refund of a $72.5 million overcollection of postretireement benefits other than pension costs. Additional rate increases of $205.3 million and $219 million authorized for 2010 and 2011, respectively. Rate of return was not an issue in this case.
(7) Rate changes effective June 1, 2009.
(8) Authorized return parameters apply only to the 120-150 MW, gas-fired Mill Creek generating plant.
(9) Rate increase associated with implementation of advanced metering infrastructure. Return parameters are those adopted in the company's previous rate case.
(10) Reflects incentive ROE (and ROR) for demand side mangement programs and the Chuck Lenzie generating plant. Without the incentives, a 10.5% ROE was authorized.
(11) Indicated ROE includes a 20 basis-point premium associated with the multi-year term of the settlement.
(12) Adopted ROE reflects a 10-basis point penalty for billing errors.
(13) Rate base valued as of 12/31/09.

Dennis Sperduto

Hawaiian Electric Company, Inc. • PO Box 2750 • Honolulu, HI 96840-0001

Dean K. Matsuura
Manager
Regulatory Affairs

November 2, 2009

The Honorable Chairman and Members
of the Hawaii Public Utilities Commission
Kekuanaoa Building, First Floor
465 South King Street
Honolulu, Hawaii 96813

Dear Commissioners:

Subject: Docket No. 2008-0083 – Hawaiian Electric 2009 Test Year Rate Case
Hawaiian Electric Hearing Exhibits for Panel 13

Hawaiian Electric Company, Inc. ("Hawaiian Electric") hereby submits the enclosed hearing exhibits:

Hearing Exhibit 7 – Update of Dr. Roger A. Morin, Rate of Return on Common Equity;
Hearing Exhibit 8 – Updated Composite Embedded Cost of Capital, Test Year 2009 Average.

Very truly yours,

Enclosures

cc: Division of Consumer Advocacy
Michael L. Brosch, Utilitech, Inc.
Joseph A. Herz, Sawvel & Associates, Inc.
David Parcell, Technical Associates, Inc.
Dr. Kay Davoodi, Department of Defense
James N. McCormick, Department of Defense
Theodore E. Vestal, Department of Defense
Ralph Smith, Larkin & Associates
Stephen Hill, Hill Associates

UPDATE OF DR. ROGER A. MORIN

RATE OF RETURN ON COMMON EQUITY

Q. Dr. Morin, do you have an updated recommendation of the fair and reasonable rate of return on the common equity capital ("ROE") for Hawaiian Electric Company Inc. ("Hawaiian Electric" or the "Company")?

A. Yes, I do.

Q. Please summarize your updated results and recommendation.

A. The results of the updates are summarized in the table below alongside the original results. The average, median, and truncated mean results are 10.7%, 11.0%, and 10.8%, respectively. From these results, I conclude that a ROE in a range of 10.75% - 11.00% is reasonable. In view of the continuing turmoil and uncertainty in capital markets, and in view of the CAPM's understatement of capital costs under current crisis conditions, it would be appropriate to use the upper end of the range, absent the revenue decoupling mechanism ("RDM")/Rider mechanisms. The RDM would include the revenue balancing account ("RBA") and the revenue adjustment mechanism ("RAM") jointly proposed by Hawaiian Electric and the Division of Consumer Advocacy in the decoupling proceeding (Docket No. 2008-0274). If the RDM/Rider mechanisms are approved by the Commission, the Company's risk is reduced, and the cost of common equity capital declines by some 25 basis points. Therefore, in that circumstance it would be reasonable to set the fair and reasonable ROE at the lower end of my recommended range for ratemaking purposes, 10.75%.

The 25 basis points adjustment is based on: 1) utility bond yield spread differentials between A-rated and Baa-rated bonds, 2) observed beta differentials, 3) differential common equity ratio requirements for S&P Business Risk Score, and 4) application of informed judgment.

METHODOLOGY	ROE Original	ROE Updated
CAPM	11.0%	9.4%
Empirical CAPM	11.3%	9.8%
Historical Risk Premium Electric	10.6%	10.9%
Allowed Risk Premium	10.2%	
DCF Vert. Integrated Electric Utilities Value Line Growth	10.5%	11.0%
DCF Vert. Integrated Electric Utilities Zacks Growth	11.9%	11.3%
DCF Electric Utility Index Value Line Growth	11.3%	11.2%
DCF Electric Utility Index Zacks Growth	11.1%	11.4%

Q. Did you make any methodological changes in your DCF analyses?

A. The only minor departure from my original DCF analysis is that for my second group of comparable utilities, I relied on the electric utilities that make up the S&P Utility index instead of the Moody's Utility Index because the latter was discontinued following the acquisition of Moody's by Mergent. For reasons of consistency, the S&P Index is used in my historical risk premium analysis.

Q. Did you make any methodological changes in your historical risk premium analysis of the utility industry?

A. In light of the financial crisis that began after I prepared my direct testimony, I made two changes. First, as explained above, I relied on the S&P Utility Index instead of the

Moody's Index in order to ensure continuity and timeliness of the risk premium data. I note that this change does not alter the results significantly.

Second, given the continuing chaotic state of the capital markets at this time, whereas trends in utility cost of capital are directly reflected in their cost of debt, they are not directly captured by a risk premium estimate tied to government bond yields. Because a utility's cost of capital is determined by its business and financial risks, it is reasonable to surmise that its cost of equity will track its cost of debt more closely than it will track the government bond yield. Therefore, I have performed my historical premium analysis of the utility industry using the A-rated utility bond yield instead of the government bond yield.

I did not implement the allowed risk premium analysis in view of the circularity inherent in this approach.

Q. Dr. Morin, what is your final conclusion regarding Hawaiian Electric's cost of common equity capital?

A. Based on the results of all my analyses, the application of my professional judgment, and the risk circumstances of Hawaiian Electric, it is my opinion that a just and reasonable ROE on Hawaiian Electric's integrated electric utility operations at this time lies in a range of 10.75% - 11.00%. Absent the RDM/Rider mechanisms, a ROE at the upper end of the range is reasonable under current capital market conditions and a ROE at the lower end of the range is reasonable assuming approval of the RDM/Rider mechanisms.

Integrated Electric Utilities

	(1)	(2)
Line No.	Company Name	Beta
1	ALLETE	0.70
2	Allegheny Energy	1.00
3	Alliant Energy	0.70
4	Amer. Elec. Power	0.70
5	Ameren Corp.	0.80
6	CMS Energy Corp.	0.80
7	Cleco Corp.	0.65
8	DPL Inc.	0.60
9	DTE Energy	0.75
10	Duke Energy	0.65
11	Edison Int'l	0.80
12	Empire Dist. Elec.	0.75
13	Entergy Corp.	0.70
14	Exelon Corp.	0.85
15	FPL Group	0.75
16	FirstEnergy Corp.	0.80
17	G't Plains Energy	0.75
18	Hawaiian Electric	0.70
19	IDACORP Inc.	0.70
20	NV Energy Inc.	0.90
21	PG&E Corp.	0.55
22	Pepco Holdings	0.80
23	Pinnacle West Capital	0.75
24	Portland General	0.70
25	Progress Energy	0.65
26	Public Serv. Enterprise	0.80
27	Southern Co.	0.55
28	TECO Energy	0.85
29	UniSource Energy	0.70
30	Westar Energy	0.75
31	Wisconsin Energy	0.65
32	Xcel Energy Inc.	0.65
	AVERAGE	**0.73**

Source: VLIA 09/2009

S&P Electric Utility Index Companies

	(1)	(2)	(3)
Line No.	Company Name	Beta	Beta
1	Allegheny Energy	1.00	1.00
2	Ameren Corp.	0.80	0.80
3	CMS Energy Corp.	0.80	0.80
4	CenterPoint Energy	0.80	
5	Consol. Edison	0.65	0.65
6	DTE Energy	0.75	0.75
7	Dominion Resources	0.70	
8	Duke Energy	0.65	0.65
9	Edison Int'l	0.80	0.80
10	Entergy Corp.	0.70	0.70
11	Exelon Corp.	0.85	0.85
12	FPL Group	0.75	0.75
13	FirstEnergy Corp.	0.80	0.80
14	Integrys Energy	0.95	
15	NiSource Inc.	0.85	
16	PG&E Corp.	0.55	0.55
17	PPL Corp.	0.70	
18	Pepco Holdings	0.80	0.80
19	Pinnacle West Capital	0.75	0.75
20	Progress Energy	0.65	0.65
21	Public Serv. Enterprise	0.80	0.80
22	Sempra Energy	0.85	
23	Southern Co.	0.55	0.55
24	TECO Energy	0.85	0.85
25	Wisconsin Energy	0.65	0.65
26	Xcel Energy Inc.	0.65	0.65
	AVERAGE	**0.76**	**0.74**

Source: VLIA 09/2009

Utility Industry Historical Risk Premium

Line No.	Year	(1) Utility A-Rated Bond Yield	(2) 20-year Maturity Bond Value	(3) Gain/Loss	(4) Interest	(5) Bond Total Return	(6) S&P Utility Index Return	(7) Utility Equity Risk Premium Over Bond Returns	(8) Utility Equity Risk Premium Over Bond Yields
1	1931	5.12%	1,000.00						
2	1932	6.46%	850.73	-149.27	51.20	-9.81%	-0.54%	9.27%	-7.00%
3	1933	6.32%	1,015.77	15.77	64.60	8.04%	-21.87%	-29.91%	-28.19%
4	1934	5.50%	1,098.72	98.72	63.20	16.19%	-20.41%	-36.60%	-25.91%
5	1935	4.61%	1,115.47	115.47	55.00	17.05%	76.63%	59.58%	72.02%
6	1936	4.08%	1,071.99	71.99	46.10	11.81%	20.69%	8.88%	16.61%
7	1937	3.98%	1,013.70	13.70	40.80	5.45%	-37.04%	-42.49%	-41.02%
8	1938	3.90%	1,011.04	11.04	39.80	5.08%	22.45%	17.37%	18.55%
9	1939	3.52%	1,054.23	54.23	39.00	9.32%	11.26%	1.94%	7.74%
10	1940	3.24%	1,040.98	40.98	35.20	7.62%	-17.15%	-24.77%	-20.39%
11	1941	3.07%	1,025.27	25.27	32.40	5.77%	-31.57%	-37.34%	-34.64%
12	1942	3.09%	997.03	-2.97	30.70	2.77%	15.39%	12.62%	12.30%
13	1943	2.99%	1,014.97	14.97	30.90	4.59%	46.07%	41.48%	43.08%
14	1944	2.97%	1,003.00	3.00	29.90	3.29%	18.03%	14.74%	15.06%
15	1945	2.87%	1,015.14	15.14	29.70	4.48%	53.33%	48.85%	50.46%
16	1946	2.71%	1,024.58	24.58	28.70	5.33%	1.26%	-4.07%	-1.45%
17	1947	2.78%	989.32	-10.68	27.10	1.64%	-13.16%	-14.80%	-15.94%
18	1948	3.02%	964.17	-35.83	27.80	-0.80%	4.01%	4.81%	0.99%
19	1949	2.90%	1,018.11	18.11	30.20	4.83%	31.39%	26.56%	28.49%
20	1950	2.79%	1,016.77	16.77	29.00	4.58%	3.25%	-1.33%	0.46%
21	1951	3.11%	952.61	-47.39	27.90	-1.95%	18.63%	20.58%	15.52%
22	1952	3.24%	980.97	-19.03	31.10	1.21%	19.25%	18.04%	16.01%
23	1953	3.49%	964.23	-35.77	32.40	-0.34%	7.85%	8.19%	4.36%
24	1954	3.16%	1,048.65	48.65	34.90	8.35%	24.72%	16.37%	21.56%
25	1955	3.22%	991.20	-8.80	31.60	2.28%	11.26%	8.98%	8.04%
26	1956	3.56%	951.65	-48.35	32.20	-1.62%	5.06%	6.68%	1.50%
27	1957	4.24%	908.92	-91.08	35.60	-5.55%	6.36%	11.91%	2.12%
28	1958	4.20%	1,005.38	5.38	42.40	4.78%	40.70%	35.92%	36.50%
29	1959	4.78%	925.83	-74.17	42.00	-3.22%	7.49%	10.71%	2.71%
30	1960	4.78%	1,000.00	0.00	47.80	4.78%	20.26%	15.48%	15.48%
31	1961	4.62%	1,020.74	20.74	47.80	6.85%	29.33%	22.48%	24.71%
32	1962	4.54%	1,010.44	10.44	46.20	5.66%	-2.44%	-8.10%	-6.98%
33	1963	4.39%	1,019.83	19.83	45.40	6.52%	12.36%	5.84%	7.97%
34	1964	4.52%	983.00	-17.00	43.90	2.69%	15.91%	13.22%	11.39%
35	1965	4.58%	992.20	-7.80	45.20	3.74%	4.67%	0.93%	0.09%
36	1966	5.39%	901.59	-98.41	45.80	-5.26%	-4.48%	0.78%	-9.87%
37	1967	5.87%	943.94	-56.06	53.90	-0.22%	-0.63%	-0.41%	-6.50%
38	1968	6.51%	928.99	-71.01	58.70	-1.23%	10.32%	11.55%	3.81%
39	1969	7.54%	894.48	-105.52	65.10	-4.04%	-15.42%	-11.38%	-22.96%
40	1970	8.69%	891.81	-108.19	75.40	-3.28%	16.56%	19.84%	7.87%
41	1971	8.16%	1,051.83	51.83	86.90	13.87%	2.41%	-11.46%	-5.75%
42	1972	7.72%	1,044.47	44.47	81.60	12.61%	8.15%	-4.46%	0.43%

Utility Industry Historical Risk Premium

Line No.	Year	(1) Utility A-Rated Bond Yield	(2) 20-year Maturity Bond Value	(3) Gain/Loss	(4) Interest	(5) Bond Total Return	(6) S&P Utility Index Return	(7) Utility Equity Risk Premium Over Bond Returns	(8) Utility Equity Risk Premium Over Bond Yields
43	1973	7.84%	987.98	-12.02	77.20	6.52%	-18.07%	-24.59%	-25.91%
44	1974	9.50%	852.57	-147.43	78.40	-6.90%	-21.55%	-14.65%	-31.05%
45	1975	10.09%	949.69	-50.31	95.00	4.47%	44.49%	40.02%	34.40%
46	1976	9.29%	1,072.11	72.11	100.90	17.30%	31.81%	14.51%	22.52%
47	1977	8.61%	1,064.35	64.35	92.90	15.72%	8.64%	-7.08%	0.03%
48	1978	9.29%	938.71	-61.29	86.10	2.48%	-3.71%	-6.19%	-13.00%
49	1979	10.49%	900.41	-99.59	92.90	-0.67%	13.58%	14.25%	3.09%
50	1980	13.34%	802.50	-197.50	104.90	-9.26%	15.08%	24.34%	1.74%
51	1981	15.95%	843.97	-156.03	133.40	-2.26%	11.74%	14.00%	-4.21%
52	1982	15.86%	1,005.41	5.41	159.50	16.49%	26.52%	10.03%	10.66%
53	1983	13.66%	1,149.59	149.59	158.60	30.82%	20.01%	-10.81%	6.35%
54	1984	14.03%	975.38	-24.62	136.60	11.20%	26.04%	14.84%	12.01%
55	1985	12.47%	1,113.97	113.97	140.30	25.43%	33.05%	7.62%	20.58%
56	1986	9.58%	1,255.25	255.25	124.70	37.99%	28.53%	-9.46%	18.95%
57	1987	10.10%	955.69	-44.31	95.80	5.15%	-2.92%	-8.07%	-13.02%
58	1988	10.49%	967.63	-32.37	101.00	6.86%	18.27%	11.41%	7.78%
59	1989	9.77%	1,062.76	62.76	104.90	16.77%	47.80%	31.03%	38.03%
60	1990	9.86%	992.20	-7.80	97.70	8.99%	-2.57%	-11.56%	-12.43%
61	1991	9.36%	1,044.85	44.85	98.60	14.34%	14.61%	0.27%	5.25%
62	1992	8.69%	1,063.03	63.03	93.60	15.66%	8.10%	-7.56%	-0.59%
63	1993	7.59%	1,112.26	112.26	86.90	19.92%	14.41%	-5.51%	6.82%
64	1994	8.31%	930.36	-69.64	75.90	0.63%	-7.94%	-8.57%	-16.25%
65	1995	7.89%	1,041.91	41.91	83.10	12.50%	42.15%	29.65%	34.26%
66	1996	7.75%	1,014.12	14.12	78.90	9.30%	3.14%	-6.16%	-4.61%
67	1997	7.60%	1,015.30	15.30	77.50	9.28%	24.69%	15.41%	17.09%
68	1998	7.04%	1,059.61	59.61	76.00	13.56%	14.82%	1.26%	7.78%
69	1999	7.62%	940.94	-59.06	70.40	1.13%	-8.85%	-9.98%	-16.47%
70	2000	8.24%	939.72	-60.28	76.20	1.59%	59.70%	58.11%	51.46%
71	2001	7.78%	1,046.28	46.28	82.40	12.87%	-30.41%	-43.28%	-38.19%
72	2002	7.37%	1,042.55	42.55	77.80	12.03%	-30.04%	-42.07%	-37.41%
73	2003	6.58%	1,087.17	87.17	73.70	16.09%	26.11%	10.02%	19.53%
74	2004	6.16%	1,047.92	47.92	65.80	11.37%	24.22%	12.85%	18.06%
75	2005	5.65%	1,060.65	60.65	61.60	12.22%	16.79%	4.57%	11.14%
76	2006	6.07%	951.73	-48.27	56.50	0.82%	20.95%	20.13%	14.88%
77	2007	6.07%	1,000.00	0.00	60.70	6.07%	19.36%	13.29%	13.29%
	Mean							**5.0%**	**5.0%**

Source: Bloomberg website: Standard & Poor's Utility Stock Index % Annual Change, Dec. to Dec.
Bond yields from Bloomberg

Electric Utility Industry Historical Growth Rates

Line No.	(1) Company Name	(2) Earnings Growth 5-Year	(3) Dividend Growth 5-Year
1	ALLETE		
2	Allegheny Energy		-17.5
3	Alliant Energy	7.0	-4.5
4	Amer. Elec. Power		-4.0
5	Ameren Corp.	-1.5	
6	Avista Corp.	4.0	-6.0
7	Black Hills	-8.0	3.5
8	CH Energy Group	-1.5	
9	CMS Energy Corp.		-16.5
10	Cen. Vermont Pub. Serv.	3.5	0.5
11	CenterPoint Energy	-2.0	
12	Cleco Corp.	0.5	1.5
13	Consol. Edison	1.5	1.0
14	Constellation Energy	3.5	0.5
15	DPL Inc.	7.0	1.5
16	DTE Energy	-2.5	
17	Dominion Resources	5.5	1.5
18	Duke Energy		
19	Edison Int'l	13.5	1.5
20	El Paso Electric	13.5	
21	Empire Dist. Elec.	3.5	
22	Entergy Corp.	10.5	4.5
23	Evergreen Energy Inc		
24	Exelon Corp.	10.5	
25	FPL Group	9.5	5.5
26	FirstEnergy Corp.	12.5	3.0
27	Florida Public Utilities	5.0	4.0
28	G't Plains Energy	-4.5	0.5
29	Hawaiian Electric	-6.0	
30	IDACORP Inc.	1.5	-4.5
31	ITC Holdings		
32	Integrys Energy	-1.5	2.5
33	MDU Resources	14.0	5.5
34	MGE Energy	6.0	1.0
35	Maine & Maritimes Corp	-14.5	
36	NSTAR	4.0	4.0
37	NV Energy Inc.		-20.0
38	NiSource Inc.	-5.0	
39	NorthWestern Corp		
40	Northeast Utilities	3.0	3.5
41	OGE Energy	11.0	0.5
42	Otter Tail Corp.	-1.5	2.5
43	PG&E Corp.	26.5	0.5
44	PNM Resources	-11.5	7.5
45	PPL Corp.	7.5	4.5
46	Pepco Holdings	-2.0	
47	Pinnacle West Capital	-1.0	6.5
48	Portland General		
49	Progress Energy	-6.5	2.5
50	Public Serv. Enterprise	5.5	1.0
51	SCANA Corp.	3.5	1.5
52	Sempra Energy	10.0	-2.5
53	Southern Co.	4.0	2.0
54	TECO Energy	-5.0	-4.0
55	U.S. Energy Sys Inc		
56	UIL Holdings		
57	UNITIL Corp.	1.5	0.5
58	UniSource Energy	-1.5	
59	Vectren Corp.	2.5	
60	Westar Energy	21.5	-6.5
61	Wisconsin Energy	6.0	-4.0
62	Xcel Energy Inc.	1.0	-4.0
	AVERAGE	**3.3**	**-0.5**

Source: Value Line Investment Analyzer 9/2009

Integrated Electric Utilities
DCF Analysis Value Line Growth Rates

	(1)	(2)	(3)
Line No.	Company Name	Current Dividend Yield	Projected EPS Growth
1	ALLETE	5.2	-1.0
2	Allegheny Energy	2.3	7.5
3	Alliant Energy	5.8	4.5
4	Amer. Elec. Power	5.2	3.0
5	Ameren Corp.	5.6	2.5
6	CMS Energy Corp.	4.0	10.0
7	Cleco Corp.	3.9	9.5
8	DPL Inc.	4.6	8.0
9	DTE Energy	6.0	7.5
10	Duke Energy	6.2	5.0
11	Edison Int'l	3.7	3.5
12	Empire Dist. Elec.	6.8	8.5
13	Entergy Corp.	3.9	6.0
14	Exelon Corp.	4.2	6.0
15	FPL Group	3.5	7.5
16	FirstEnergy Corp.	4.8	4.0
17	G't Plains Energy	4.7	-0.5
18	Hawaiian Electric	7.0	7.0
19	IDACORP Inc.	4.1	4.5
20	NV Energy Inc.	3.8	4.5
21	PG&E Corp.	4.3	6.5
22	Pepco Holdings	7.4	2.0
23	Pinnacle West Capital	6.3	3.0
24	Portland General	5.2	3.5
25	Progress Energy	6.2	6.0
26	Public Serv. Enterprise	4.3	7.5
27	Southern Co.	5.7	5.0
28	TECO Energy	5.9	4.5
29	UniSource Energy	3.9	17.5
30	Westar Energy	5.8	4.0
31	Wisconsin Energy	3.1	8.0
32	Xcel Energy Inc.	5.0	6.5

Notes:
Column 2, 3: Value Line Investment Analyzer, 09/2009

Integrated Electric Utilities
DCF Analysis Value Line Growth Rates

	(1)	(2)	(3)	(4)	(5)	(6)
Line No.	Company Name	Current Dividend Yield	Projected EPS Growth	% Expected Dividend Yield	Cost of Equity	ROE
1	Allegheny Energy	2.3	7.5	2.5	10.0	10.1
2	Alliant Energy	5.8	4.5	6.0	10.5	10.8
3	Amer. Elec. Power	5.2	3.0	5.3	8.3	8.6
4	Ameren Corp.	5.6	2.5	5.7	8.2	8.5
5	CMS Energy Corp.	4.0	10.0	4.4	14.4	14.7
6	Cleco Corp.	3.9	9.5	4.2	13.7	13.9
7	DPL Inc.	4.6	8.0	4.9	12.9	13.2
8	DTE Energy	6.0	7.5	6.5	14.0	14.3
9	Duke Energy	6.2	5.0	6.5	11.5	11.9
10	Edison Int'l	3.7	3.5	3.9	7.4	7.6
11	Empire Dist. Elec.	6.8	8.5	7.4	15.9	16.3
12	Entergy Corp.	3.9	6.0	4.1	10.1	10.3
13	Exelon Corp.	4.2	6.0	4.4	10.4	10.6
14	FPL Group	3.5	7.5	3.8	11.3	11.4
15	FirstEnergy Corp.	4.8	4.0	5.0	9.0	9.3
16	G't Plains Energy	4.7	-0.5	4.6	4.1	4.4
17	Hawaiian Electric	7.0	7.0	7.5	14.5	14.9
18	IDACORP Inc.	4.1	4.5	4.3	8.8	9.0
19	NV Energy Inc.	3.8	4.5	3.9	8.4	8.6
20	PG&E Corp.	4.3	6.5	4.5	11.0	11.3
21	Pepco Holdings	7.4	2.0	7.6	9.6	10.0
22	Pinnacle West Capital	6.3	3.0	6.5	9.5	9.8
23	Portland General	5.2	3.5	5.4	8.9	9.2
24	Progress Energy	6.2	6.0	6.6	12.6	13.0
25	Public Serv. Enterprise	4.3	7.5	4.6	12.1	12.3
26	Southern Co.	5.7	5.0	6.0	11.0	11.3
27	TECO Energy	5.9	4.5	6.2	10.7	11.0
28	UniSource Energy	3.9	17.5	4.6	22.1	22.3
29	Westar Energy	5.8	4.0	6.1	10.1	10.4
30	Wisconsin Energy	3.1	8.0	3.4	11.4	11.6
31	Xcel Energy Inc.	5.0	6.5	5.3	11.8	12.1
	AVERAGE	**4.9**	**5.9**	**5.2**	**11.1**	**11.4**
	MEDIAN					**11.0**

Notes:
Column 1, 2, 3: Value Line Investment Analyzer, 09/2009
Column 4 = Column 2 times (1 + Column 3/100)
Column 5 = Column 4 + Column 3
Column 6 = (Column 4 /0.95) + Column 3
ALLETE eliminated: negative growth projection.

Integrated Electric Utilities
DCF Analysis Analysts' Growth Forecasts

Line No.	(1) Company Name	(2) Current Dividend Yield	(3) Analysts' Growth Forecast
1	ALLETE	5.2	4.0
2	Allegheny Energy	2.3	13.8
3	Alliant Energy	5.8	4.3
4	Amer. Elec. Power	5.2	3.8
5	Ameren Corp.	5.6	3.7
6	CMS Energy Corp.	4.0	6.3
7	Cleco Corp.	3.9	14.5
8	DPL Inc.	4.6	4.5
9	DTE Energy	6.0	4.0
10	Duke Energy	6.2	4.5
11	Edison Int'l	3.7	6.0
12	Empire Dist. Elec.	6.8	-
13	Entergy Corp.	3.9	6.3
14	Exelon Corp.	4.2	7.0
15	FPL Group	3.5	8.7
16	FirstEnergy Corp.	4.8	6.0
17	G't Plains Energy	4.7	3.0
18	Hawaiian Electric	7.0	6.0
19	IDACORP Inc.	4.1	5.0
20	NV Energy Inc.	3.8	7.0
21	PG&E Corp.	4.3	7.0
22	Pepco Holdings	7.4	5.0
23	Pinnacle West Capital	6.3	6.5
24	Portland General	5.2	-
25	Progress Energy	6.2	4.6
26	Public Serv. Enterprise	4.3	5.8
27	Southern Co.	5.7	7.9
28	TECO Energy	5.9	10.3
29	UniSource Energy	3.9	5.0
30	Westar Energy	5.8	5.7
31	Wisconsin Energy	3.1	8.5
32	Xcel Energy Inc.	5.0	5.2

Notes:
Column 1, 2: Value Line Investment Analyzer, 09/2009
Column 3: Zacks long-term earnings growth forecast, 09/2009

Integrated Electric Utilities
DCF Analysis Analysts' Growth Forecasts

Line No.	(1) Company Name	(2) Current Dividend Yield	(3) Analysts' Growth Forecast	(4) % Expected Dividend Yield	(5) Cost of Equity	(6) ROE
1	ALLETE	5.2	4.0	5.4	9.4	9.7
2	Allegheny Energy	2.3	13.8	2.6	16.3	16.5
3	Alliant Energy	5.8	4.3	6.0	10.3	10.7
4	Amer. Elec. Power	5.2	3.8	5.4	9.2	9.5
5	Ameren Corp.	5.6	3.7	5.8	9.5	9.8
6	CMS Energy Corp.	4.0	6.3	4.3	10.5	10.8
7	Cleco Corp.	3.9	14.5	4.4	18.9	19.2
8	DPL Inc.	4.6	4.5	4.8	9.3	9.5
9	DTE Energy	6.0	4.0	6.3	10.3	10.6
10	Duke Energy	6.2	4.5	6.5	11.0	11.3
11	Edison Int'l	3.7	6.0	4.0	10.0	10.2
12	Entergy Corp.	3.9	6.3	4.1	10.4	10.7
13	Exelon Corp.	4.2	7.0	4.4	11.4	11.7
14	FPL Group	3.5	8.7	3.8	12.5	12.7
15	FirstEnergy Corp.	4.8	6.0	5.1	11.1	11.4
16	G't Plains Energy	4.7	3.0	4.8	7.8	8.1
17	Hawaiian Electric	7.0	6.0	7.4	13.4	13.8
18	IDACORP Inc.	4.1	5.0	4.3	9.3	9.6
19	NV Energy Inc.	3.8	7.0	4.0	11.0	11.2
20	PG&E Corp.	4.3	7.0	4.6	11.6	11.8
21	Pepco Holdings	7.4	5.0	7.8	12.8	13.2
22	Pinnacle West Capital	6.3	6.5	6.7	13.2	13.6
23	Progress Energy	6.2	4.6	6.5	11.1	11.5
24	Public Serv. Enterprise	4.3	5.8	4.5	10.3	10.5
25	Southern Co.	5.7	7.9	6.1	14.0	14.3
26	TECO Energy	5.9	10.3	6.5	16.8	17.1
27	UniSource Energy	3.9	5.0	4.1	9.1	9.3
28	Westar Energy	5.8	5.7	6.1	11.8	12.1
29	Wisconsin Energy	3.1	8.5	3.4	11.9	12.1
30	Xcel Energy Inc.	5.0	5.2	5.2	10.4	10.7
	AVERAGE	**4.9**	**6.3**	**5.2**	**11.5**	**11.8**
	MEDIAN					**11.3**

Notes:
Column 1, 2: Value Line Investment Analyzer, 09/2009
Column 3: Zacks long-term earnings growth forecast, 09/2009
Column 4 = Column 2 times (1 + Column 3/100)
Column 5 = Column 4 + Column 3
Column 6 = (Column 4 /0.95) + Column 3

Note: No growth forecast available for Empire District, Portland General

S&P UTILITY INDEX ELECTRIC UTILITIES
DCF ANALYSIS: VALUE LINE GROWTH PROJECTIONS

	Company	% Current Dividend Yield (1)	Proj EPS Growth (2)
1	Allegheny Energy	2.3	7.5
2	Ameren Corp.	5.6	2.5
3	CMS Energy Corp.	4.0	10.0
4	CenterPoint Energy	6.1	3.0
5	Consol. Edison	5.8	3.0
6	DTE Energy	6.0	7.5
7	Dominion Resources	5.5	8.0
8	Duke Energy	6.2	5.0
9	Edison Int'l	3.7	3.5
10	Entergy Corp.	3.9	6.0
11	Exelon Corp.	4.2	6.0
12	FPL Group	3.5	7.5
13	FirstEnergy Corp.	4.8	4.0
14	Integrys Energy	7.9	5.5
15	NiSource Inc.	6.8	1.0
16	PG&E Corp.	4.3	6.5
17	PPL Corp.	5.1	7.5
18	Pepco Holdings	7.4	2.0
19	Pinnacle West Capital	6.3	3.0
20	Progress Energy	6.2	6.0
21	Public Serv. Enterprise	4.3	7.5
22	Sempra Energy	3.2	5.5
23	Southern Co.	5.7	5.0
24	TECO Energy	5.9	4.5
25	Wisconsin Energy	3.1	8.0
26	Xcel Energy Inc.	5.0	6.5

Notes:
Column 1, 2: Value Line Investment Analyzer, 9/2009

S&P UTILITY INDEX ELECTRIC UTILITIES
DCF ANALYSIS: VALUE LINE GROWTH PROJECTIONS

	Company	% Current Dividend Yield (1)	Proj EPS Growth (2)	% Expected Dividend Yield (3)	Cost of Equity (4)	ROE (5)
1	Allegheny Energy	2.3	7.5	2.5	10.0	10.1
2	Ameren Corp.	5.6	2.5	5.7	8.2	8.5
3	CMS Energy Corp.	4.0	10.0	4.4	14.4	14.7
4	CenterPoint Energy	6.1	3.0	6.3	9.3	9.6
5	Consol. Edison	5.8	3.0	6.0	9.0	9.3
6	DTE Energy	6.0	7.5	6.5	14.0	14.3
7	Dominion Resources	5.5	8.0	5.9	13.9	14.3
8	Duke Energy	6.2	5.0	6.5	11.5	11.9
9	Edison Int'l	3.7	3.5	3.9	7.4	7.6
10	Entergy Corp.	3.9	6.0	4.1	10.1	10.3
11	Exelon Corp.	4.2	6.0	4.4	10.4	10.6
12	FPL Group	3.5	7.5	3.8	11.3	11.4
13	FirstEnergy Corp.	4.8	4.0	5.0	9.0	9.3
14	Integrys Energy	7.9	5.5	8.3	13.8	14.2
15	NiSource Inc.	6.8	1.0	6.9	7.9	8.3
16	PG&E Corp.	4.3	6.5	4.5	11.0	11.3
17	PPL Corp.	5.1	7.5	5.5	13.0	13.2
18	Pepco Holdings	7.4	2.0	7.6	9.6	10.0
19	Pinnacle West Capital	6.3	3.0	6.5	9.5	9.8
20	Progress Energy	6.2	6.0	6.6	12.6	13.0
21	Public Serv. Enterprise	4.3	7.5	4.6	12.1	12.3
22	Sempra Energy	3.2	5.5	3.4	8.9	9.1
23	Southern Co.	5.7	5.0	6.0	11.0	11.3
24	TECO Energy	5.9	4.5	6.2	10.7	11.0
25	Wisconsin Energy	3.1	8.0	3.4	11.4	11.6
26	Xcel Energy Inc.	5.0	6.5	5.3	11.8	12.1
	AVERAGE	**5.1**	**5.5**	**5.4**	**10.8**	**11.1**
	MEDIAN					**11.2**

Notes:
Column 1, 2: Value Line Investment Analyzer, 9/2009
Column 3 = Column 1 times (1 + Column 2/100)
Column 4 = Column 3 + Column 2
Column 5 = (Column 3 /0.95) + Column 2

S&P UTILITY INDEX ELECTRIC UTILITIES
DCF ANALYSIS: VALUE LINE GROWTH PROJECTIONS
Companies With More Than 50% Regulated Revenues

	Company	% Current Dividend Yield (1)	Proj EPS Growth (2)	% Expected Dividend Yield (3)	Cost of Equity (4)	ROE (5)
1	Allegheny Energy	2.3	7.5	2.5	10.0	10.1
2	Ameren Corp.	5.6	2.5	5.7	8.2	8.5
3	CMS Energy Corp.	4.0	10.0	4.4	14.4	14.7
4	Consol. Edison	5.8	3.0	6.0	9.0	9.3
5	DTE Energy	6.0	7.5	6.5	14.0	14.3
6	Duke Energy	6.2	5.0	6.5	11.5	11.9
7	Edison Int'l	3.7	3.5	3.9	7.4	7.6
8	Entergy Corp.	3.9	6.0	4.1	10.1	10.3
9	Exelon Corp.	4.2	6.0	4.4	10.4	10.6
10	FirstEnergy Corp.	4.8	4.0	5.0	9.0	9.3
11	FPL Group	3.5	7.5	3.8	11.3	11.4
12	Pepco Holdings	7.4	2.0	7.6	9.6	10.0
13	PG&E Corp.	4.3	6.5	4.5	11.0	11.3
14	Pinnacle West Capital	6.3	3.0	6.5	9.5	9.8
15	Progress Energy	6.2	6.0	6.6	12.6	13.0
16	Public Serv. Enterprise	4.3	7.5	4.6	12.1	12.3
17	Southern Co.	5.7	5.0	6.0	11.0	11.3
18	TECO Energy	5.9	4.5	6.2	10.7	11.0
19	Wisconsin Energy	3.1	8.0	3.4	11.4	11.6
20	Xcel Energy Inc.	5.0	6.5	5.3	11.8	12.1
	AVERAGE	**4.9**	**5.6**	**5.2**	**10.7**	**11.0**
	MEDIAN					**11.2**

Notes:
Column 1, 2: Value Line Investment Analyzer, 9/2009
Column 3 = Column 1 times (1 + Column 2/100)
Column 4 = Column 3 + Column 2
Column 5 = (Column 3 /0.95) + Column 2

Companies with less than 50% regulated revenues:
CenterPoint, NiSource, Dominion, Integrys, PPL, Sempra.

S&P UTILITY INDEX ELECTRIC UTILITIES
DCF ANALYSIS: ANALYSTS' GROWTH PROJECTIONS

	Company	% Current Dividend Yield (1)	Proj EPS Growth (2)	% Expected Dividend Yield (3)	Cost of Equity (4)	ROE (5)
1	Allegheny Energy	2.3	13.8	2.6	16.3	16.5
2	Ameren Corp.	5.6	3.7	5.8	9.5	9.8
3	CMS Energy Corp.	4.0	6.3	4.3	10.5	10.8
4	CenterPoint Energy	6.1	7.0	6.5	13.5	13.9
5	Consol. Edison	5.8	3.8	6.1	9.9	10.2
6	DTE Energy	6.0	4.0	6.3	10.3	10.6
7	Dominion Resources	5.5	5.3	5.8	11.1	11.4
8	Duke Energy	6.2	4.5	6.5	11.0	11.3
9	Edison Int'l	3.7	6.0	4.0	10.0	10.2
10	Entergy Corp.	3.9	6.3	4.1	10.4	10.7
11	Exelon Corp.	4.2	7.0	4.4	11.4	11.7
12	FPL Group	3.5	8.7	3.8	12.5	12.7
13	FirstEnergy Corp.	4.8	6.0	5.1	11.1	11.4
14	Integrys Energy	7.9	15.1	9.1	24.2	24.6
15	NiSource Inc.	6.8	3.0	7.0	10.0	10.4
16	PG&E Corp.	4.3	7.0	4.6	11.6	11.8
17	PPL Corp.	5.1	7.5	5.5	13.0	13.2
18	Pepco Holdings	7.4	5.0	7.8	12.8	13.2
19	Pinnacle West Capital	6.3	6.5	6.7	13.2	13.6
20	Progress Energy	6.2	4.6	6.5	11.1	11.5
21	Public Serv. Enterprise	4.3	5.8	4.5	10.3	10.5
22	Sempra Energy	3.2	6.5	3.4	9.9	10.1
23	Southern Co.	5.7	7.9	6.1	14.0	14.3
24	TECO Energy	5.9	10.3	6.5	16.8	17.1
25	Wisconsin Energy	3.1	8.5	3.4	11.9	12.1
26	Xcel Energy Inc.	5.0	5.2	5.2	10.4	10.7
	AVERAGE	**5.1**	**6.7**	**5.4**	**12.2**	**12.5**
	MEDIAN					**11.4**

Notes:
Column 1: Value Line Investment Analyzer, 9/2009
Column 2: Zacks Investment Research, 9/2009
Column 3 = Column 1 times (1 + Column 2/100)
Column 4 = Column 3 + Column 2
Column 5 = (Column 3 /0.95) + Column 2

S&P UTILITY INDEX ELECTRIC UTILITIES
DCF ANALYSIS: ANALYSTS' GROWTH PROJECTIONS

Companies With More Than 50% Regulated Revenues

	Company	% Current Dividend Yield (1)	Proj EPS Growth (2)	% Expected Dividend Yield (3)	Cost of Equity (4)	ROE (5)
1	Allegheny Energy	2.3	13.8	2.6	16.3	16.5
2	Ameren Corp.	5.6	3.7	5.8	9.5	9.8
3	CMS Energy Corp.	4.0	6.3	4.3	10.5	10.8
4	Consol. Edison	5.8	3.8	6.1	9.9	10.2
5	DTE Energy	6.0	4.0	6.3	10.3	10.6
6	Duke Energy	6.2	4.5	6.5	11.0	11.3
7	Edison Int'l	3.7	6.0	4.0	10.0	10.2
8	Entergy Corp.	3.9	6.3	4.1	10.4	10.7
9	Exelon Corp.	4.2	7.0	4.4	11.4	11.7
10	FirstEnergy Corp.	4.8	6.0	5.1	11.1	11.4
11	FPL Group	3.5	8.7	3.8	12.5	12.7
12	Pepco Holdings	7.4	5.0	7.8	12.8	13.2
13	PG&E Corp.	4.3	7.0	4.6	11.6	11.8
14	Pinnacle West Capital	6.3	6.5	6.7	13.2	13.6
15	Progress Energy	6.2	4.6	6.5	11.1	11.5
16	Public Serv. Enterprise	4.3	5.8	4.5	10.3	10.5
17	Southern Co.	5.7	7.9	6.1	14.0	14.3
18	TECO Energy	5.9	10.3	6.5	16.8	17.1
19	Wisconsin Energy	3.1	8.5	3.4	11.9	12.1
20	Xcel Energy Inc.	5.0	5.2	5.2	10.4	10.7
	AVERAGE	**4.9**	**6.5**	**5.2**	**11.7**	**12.0**
	MEDIAN					**11.4**

Notes:
Column 1: Value Line Investment Analyzer, 9/2009
Column 2: Zacks Investment Research, 9/2009
Column 3 = Column 1 times (1 + Column 2/100)
Column 4 = Column 3 + Column 2
Column 5 = (Column 3 /0.95) + Column 2

Companies eliminated with less than 50% regulated revenues:
CenterPoint, NiSource, Dominion, Integrys, PPL, Sempra.

Regulatory Research Associates
Authorized ROE's
Through September 4, 2009

					Increase Authorized: Date	Increase Authorized: Return on Equity (%)	Decoupling
1	Arkansas	Oklahoma Gas and Electric Co.	D-08-103-U	Electric	5/20/2009	10.25	
2	California	Southern California Edison Co.	Ap-07-11-011	Electric	3/12/2009	11.50	X
3	Florida	Tampa Electric Co.	D-080317-EI	Electric	3/17/2009	11.25	
4	Idaho	Avista Corp.	C-AVU-E-09-01	Electric	7/17/2009	10.50	
5	Idaho	Idaho Power Co.	C-IPC-E-09-07	Electric	5/29/2009	10.50	X
6	Idaho	Idaho Power Co.	C-IPC-E-08-10	Electric	1/30/2009	10.50	X
7	Indiana	Indiana Michigan Power Co.	Ca-43306	Electric	3/4/2009	10.50	
8	Louisiana	Entergy New Orleans Inc.	D-UD-08-03 (elec.)	Electric	4/2/2009	11.10	
9	Minnesota	ALLETE (Minnesota Power)	D-E-015/GR-08-415	Electric	4/3/2009	10.74	
10	Missouri	Union Electric Co.	C-ER-2008-0318	Electric	1/27/2009	10.76	
11	Nevada	Nevada Power Co.	D-08-12002	Electric	6/24/2009	10.80	
12	New Mexico	Public Service Co. of NM	C-08-00273-UT	Electric	5/28/2009	10.50	
13	New York	Central Hudson Gas & Electric	C-08-E-0887	Electric	6/18/2009	10.00	X
14	New York	Consolidated Edison Co. of NY	C-08-E-0539	Electric	4/21/2009	10.00	X
15	Ohio	Cleveland Elec Illuminating Co	C-07-0551-EL-AIR (CEI)	Electric	1/21/2009	10.50	
16	Ohio	Duke Energy Ohio Inc.	C-08-0709-EL-AIR	Electric	7/8/2009	10.63	
17	Ohio	Ohio Edison Co.	C-07-0551-EL-AIR (OE)	Electric	1/21/2009	10.50	
18	Ohio	Toledo Edison Co.	C-07-0551-EL-AIR (TE)	Electric	1/21/2009	10.50	
19	Oklahoma	Public Service Co. of OK	Ca-PUD-200800144	Electric	1/14/2009	10.50	
20	Texas	Oncor Electric Delivery Co.	D-35717	Electric	8/13/2009	10.25	
21	Utah	PacifiCorp	D-08-035-38	Electric	4/21/2009	10.61	
			All	21	Average	10.59	
			Decoupling	5	Average	10.50	
			Not Decoupled	16	Average	10.62	

Averages exclude the following as an outlier:

22	Connecticut	United Illuminating Co.	D-08-07-04	Electric	2/4/2009	8.75	X

Hawaiian Electric Company, Inc.

Composite Embedded Cost of Capital
Test Year 2009 Average
($ Thousands)

		(A)	(B) = (A)/Total(A)	(C)	(D) = (B)*(C)
		Capitalization			
	WP Series Reference	Amount	Percent of Total	Earnings Requirement	Weighted Earnings Requirements
Short-Term Debt	HECO-R-2002	$ -	0.00%		0.000%
Long-Term Debt	HECO-R-2003	576,569	40.76%	5.81%	2.368%
Hybrid Securities	HECO-2004	27,775	1.96%	7.41%	0.146%
Preferred Stock	HECO-R-2004	20,696	1.46%	5.48%	0.080%
Common Equity	Oct '09 Update	789,374	55.81%	10.75%	5.999%
Total Capitalization		$ 1,414,414	100.00%		8.593%
Estimated 2009 Test Year Composite Cost of Capital					**8.59%**

Totals may not add exactly due to rounding.